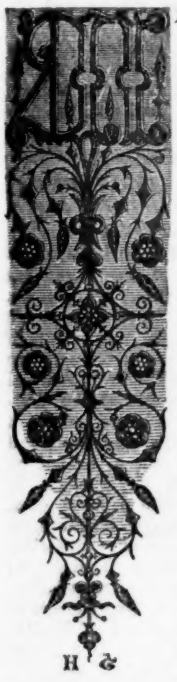
The Builder.

VOL. XVII.—No. 846.

Art-Gossip — English Art in Paris — the New Royal Academy — New Water-Colour Society.



MATTERS of Art are just now the chief subject of gossip, and we string together a few items of that kind. The Exhibition of the Fine Arts in the Paris Palace of Industry is open, and the room appropriated to English artists is *empty!* They have not refused to send, but they have stated, through a representative in Paris, that it will not be possible to forward works from this country before the end of May or beginning of June. Coming, as the invitation from the French Government did, at the moment when our artists were occupied in preparing for the Exhibitions of the season in London, this is not to be wondered at. The delay will enable some artists to send works for which room could not be found at the Academy, but this will not tend to make the collection a proper representation of our school. Some of the French journals speak crossly on the subject. The *Revue des Beaux Arts* says:—"Why this delay? It would be difficult to say, and it does not suit us to be the echo of all the rumours on the subject. The apartment reserved for Messieurs the English is quite ready: when it is furnished with their works it will be opened. We shall then learn if the delay has been a calculation or a *ruse* on their part." The Germans and Dutch are congratulated on not having followed this "disagreeable example." There are some capital works from these countries. Another part of the Exhibition, namely, the sculpture, is incomplete. It was determined at the last moment to transform the nave into a garden for the display of horticulture, and there, by the side of artificial water, under trees, and amidst beds of flowers, the statues and groups will be placed. Growing out of this allusion to horticulture, we may mention that in the Paris Boulevarts the planting of new substantial trees has succeeded wonderfully: for those of the Madeleine and Capucines, the tree selected is not the same as that in the Rue Royale, viz. a maple, but a plane-tree, similar to those planted on the promenades of nearly every town on the Continent.

The last statue exhibited in Paris is one of the Marshal Loban, intended for the city of Phalsbourg, and which has been provisionally set up in front of the Louvre, beside the Pont des Arts. The figure is standing on a pedestal. The likeness is perfect; but he is represented in his extreme age, cloaked and bare-headed, (his hat being on a mortar behind him) with his gloves in one hand and his baton of marshal in the other. It is not a first-rate production. The works of Ary Scheffer have been gathered together in a house belonging to the Marquis of Hertford, by a committee of artists and others, to be exhibited to the public. The proceeds will be given to an association of artists of which Scheffer was a member.

Our tasteful neighbours sometimes make mistakes: the upper story of the *new tower* of or near St. Germain de l'Auxerrois, of which we have spoken, is demolished to make room for one of better character. At its base, coped walls have been run out right and left, with Gothic openings. These constructions are to be the last attempts at uniting the Mairie on the north side with the church on the south.

At Passy, Rossini, the composer,—too long silent, by the way,—is about to build himself a house: the first stone was laid by the composer himself a few days ago, and was thus inscribed:—"*Joachim Rossini a posé la première pierre de cette Villa le* 10 *Mais*, 1859." A medal struck in his honour on the production of his "Stabat" was enclosed with the inscription. To crown this little *fête*, Madame Rossini planted a rose-tree, decked with favours; and now the promenaders of Ranelagh will watch the progress of this habitation, which will be rendered historic, as being the House of Rossini.

The works from Belgium in the Paris Exhibition are viewed with much favour. Belgium has some excellent artists,—a fact fully recognized by English picture-buyers. In the departments of art-manufacture, too, Belgium finds customers in this country. Messrs. Corman, zinc and bronze founders, of Brussels, have recently executed for a nobleman residing in Wales a large fountain, which is much admired in Brussels as a specimen of Belgian art. It consists of four statues in bronze larger than life, surrounding a column surmounted by a reversed shield, on which is a basket of flowers and fruit. The statues represent Manufactures under the figure of an athletic blacksmith; Navigation as a sailor leaning on an oar; Science as a female, measuring with a compass on a celestial globe the march of the planets; and the Arts as a young girl, holding in one hand a pencil, and in the other a wreath. The fountain, with the base, will be 22 feet high, and the basin 34 feet to 36 feet in diameter. The work is at present being exhibited to the public, and the Duke de Brabant and the Count de Flanders a few days ago went to see it.

Coming back to England, we are not by any means sure that the public drinking-fountains about to be erected in the metropolis will be so satisfactory in point of art as they should be. We shall have something to say of them before long.

The exhibition at the Royal Academy about to open will be deficient, we fear, in pictures of great mark, but may, nevertheless, prove a collection of good average merit. At the dinner in aid of the Artists' General Benevolent Institution, on Saturday last, when Lord Hardinge presided, and the R.A.s mustered strongly, as they should do on such occasions, Sir Charles Eastlake, on returning thanks for the Academy, expressed the belief that in the new house which was to be provided for the Royal Academy there would be greatly increased accommodation for the exhibition of works of art.

The Academicians, as they are to pay for their own building, have chosen their architect from their own body, and the choice has fallen on Sir Charles Barry. The First Commissioner of Works has appointed Messrs. Banks and Barry architects to the Board, for arranging the buildings on the site of Burlington House, for the various Societies of Art, Science, and Learning, who at present occupy Burlington House, Somerset House, with some others added, if room suffices. The architects have been directed, as a preliminary step, to confer with the Royal Academy and the other societies, in order to parcel out the space as advantageously as possible. In the case of the Royal Academy, they have, as Government architects, only to settle the area to be devoted to the Academy. The societies at present in Burlington House are—the Royal Society, the Senate of London University, the Linnæan Society, the Chemical Society; and in Somerset House—the Antiquarian Society, the Geological, and the Astronomical. It is also proposed to find accommodation for a new Patent Office, with extensive museum, library of inventions, and other appliances. This appointment of Messrs. Banks and Barry will probably be viewed, with reference to the late Foreign Office competition, as homage to the principle that in competitions the authors of selected designs should be employed to carry them into execution.

Whether or not the Government will positively give to the Royal Academy the portion of the site of Burlington House required, without reference to Parliament, remains yet to be seen. The claims of other art-bodies will require adjudication. The sum available for the new building for the Academy, is understood to be 50,000*l.*

The New Society of Painters in Water-Colours have memorialized the Lords of the Treasury, setting forth how they have aided in promoting and improving the public taste as regards this particular branch of art; which has, confessedly, attained a higher degree of eminence in our own country than throughout the whole of Europe: showing further that the number of water-colour artists is still greatly increasing, and that additional means for exhibiting their works, beyond the present very limited space for the purpose, are still urgently required; and praying that their lordships will "take the case of this long-established Society into favourable consideration, in the arrangements which their lordships may be pleased to make for the extension and exhibition of works of art, and that they may be admitted to the great privilege of sharing with the Royal Academy and the other Water-Colour Society in the space their lordships may determine shall be allotted for the purpose." The Society have offered to carry out whatever measures the Lords of the Treasury may deem most effectual in promoting water-colour art, as a means of advancing the public taste.

The present exhibition of the society, now open, is calculated to strengthen their application. It is a very good one; and, as a result, pictures were bought on the private view day (last Saturday) to the amount of more than 1,500*l.*! The Queen bought four small ones—(12) "Caernarvon Castle," by Edward Richardson; (101) "A View at Hampstead," by J. H. Mole; (246) "Robin Hood in Sherwood Forest," by Edmund G. Warren; and "The Great Pyramid after Sunset," by Henry Warren (298). Mr. E. G. Warren has two remarkably clever works, "Lost in the Woods" (88), and "The Avenue, Evelyn Woods, Surrey" (228): the latter recalls many charming recollections of similar spots. Mr. Bennett has never exhibited anything so fine as "The Tees and Mortram Tower, Yorkshire," seizing the moment,

> "When the sun's last rays
> Have pass'd from hill and spire,
> To mark the course of sinuous stream
> By track of golden fire."

The movement and thought in Mr. Haghe's picture of "Cromwell" (contemplating the portrait of Charles I.), 53, are admirable; and he has a larger work, full of incident, "An Emeute at Louvain, in Olden Time" (61). Mr. Edward Corbould's large picture from Tennyson's "Dream of Fair Women," which displays some elegant work, gives visitors something to find out, and they gradually identify the Grecian Helen and Iphigenia, Cleopatra, Fair Rosamond, Joan of Arc, Jephtha's Daughter, Queen Eleanor, and Margaret Roper. S. Cook has some graceful and poetic coast scenes; Mr. Wehnert has a picture with more colour than life in it: Mr. Whymper is advancing fast; and McKewan, W. Telbin, John Chase, Rowbotham, Mrs. Margetts, and some other members, exhibit good specimens of what they can do. The crowd that filled the gallery on Saturday showed that the society want more accommodation; and their active secretary, Mr. Fahey, had as much as he could do to affix the tickets which say, "Sold!"

MICHELANGELO AND HIS TIMES.

THE ARCHITECTURAL EXHIBITION.

ON Tuesday evening last Mr. Robert Kerr delivered a lecture on Michelangelo and his Times, at the Architectural Exhibition, Conduit-street.

The chair was taken by Mr. E. B. Lamb.

Mr. Kerr commenced by stating that he proposed, in the first instance, to take a historical review of the sixteenth century, and look at Michelangelo as the architectural type of that period. The sixteenth century might be said to be that which witnessed the revival of art, for it was that in which the mightiest intellect of the day in connection with the fine arts had flourished. There was no disguising the fact, that in the present day the sixteenth century was unpopular with some, who maintained that the thirteenth century was to be regarded as the proper starting point for the revival of art. He did not wish to find fault with those who held that opinion. He was willing to admit that the thirteenth century

was deserving of all the importance which the school to which he referred desired to claim for it; but he could not ignore the claims of the sixteenth century to be considered an important period in the improvement of the human mind. The thirteenth and the sixteenth centuries might be viewed as presenting a marked contrast to each other. The former was the culminating point of its own period, while the latter might be viewed as the starting point from which that revival took place which was still tending in an onward direction. It was a remarkable fact throughout the history of the human race, that periods of 500 years each might be fixed upon as constituting the stages of art development. There were, for instance, two periods of 500 years each before the Christian era, and we were now in the fourth period of 500 years since that time. A thousand years before the Christian era the power of the Egyptian intellect was dominant. The Assyrian and the Persian succeeded; and as they in their turn declined, Greek art became ascendant. In the next period—the 500 years preceding the birth of Christ—Greek power decayed, and that of Rome was on the increase. The latter power then declined, and was succeeded by the "dark ages," which lasted until 100 years after Christ. Then came the "middle period," and after a lapse of another 500 years there was the "revival." From this it would appear, that in about 2,000 years after Christianity, or at the conclusion of the fourth period of 500 years since the birth of Christ, there would in all probability be another stage of human development, of which we might now trace the motive power working in various directions. Commencing with the birth of Christ, Rome was at its highest point of greatness. A century and a half afterwards, the Barbarians pressed heavily upon the confines of her limited empire, and the Christian religion gradually undermined the old Pagan States. When Constantine, yielding to the pressure from without, removed the seat of Christianity from Rome to Byzantium, his own personal influence was of little consequence, for the people became Christians, and Rome became, in fact, too hot to hold him. He founded a great city on the shores of the Bosphorus, erected many fine buildings, and established schools of art, which were started in the fourth century. At that time the early Christians were sincere, no doubt, in their newborn zeal; but they were no promoters of art. They called the statues and pictures "idols;" they tied ropes round the Venus and Apollo, tried and condemned them as unholy, broke them in pieces, and, having pounded them to atoms, blew the dust to the winds of heaven. It was at this time that the system of allegorical painting originated; for although the early Christians could dispense with Venus and Apollo, they wanted pictures of Christ. These representations were then that of a youthful and beautiful man, with a smile of triumph on his features, and depicted treading a lion under foot, or acting as a shepherd tending his flock. The fathers, in the Dark Ages, represented the Saviour in an agony, nailed upon a cross, with bleeding limbs and anguished brow. Then it was that the Saviour and the saint were not represented so much as art works, but by allegorical casts of countenance and accessories. In the Eastern empire, before the sixth century, Justitian made a bold effort to revive the arts. He rebuilt Santa Sophia; he constructed numerous bridges and aqueducts, and founded many schools of art. But when he died, art languished until East and West were reduced to the lowest point to which the human intellect had descended short of barbarism. The Latin language, even, was forgotten; noblemen could not sign their names except with a cross; and our own King Alfred declared that he scarcely knew an ecclesiastic who could understand the prayers he was reading, or the homilies he was preaching. Mahomed next endeavoured to overthrow idol worship; and he believed he could not effect that object if Christianity were to be introduced in its stead. In the succeeding century came the iconoclastic disputes between those who held that images were to be worshipped and others who opposed the system. Leo took the lead against it, on the ground of heresy, and issued edicts to destroy the pictures; but Gregory II. bishop of Rome, opposed Leo's troops, which were utterly annihilated. Charlemagne, in the ninth century, founded schools, and did all he could to revive the arts and letters; but there was too much war and bloodshed in the time of that monarch for an enduring policy; and at his death arts and letters were again lost. After the death of Charlemagne, a relapse took place, which continued to the end of the tenth century. In the Middle Ages the dawn began to break; feudalism was established; and the young Italian republics—Milan, Florence, Genoa, and others,—sprang into existence. Thus it would be seen that Commerce was the parent of Freedom. Trade had originated Freedom, and to this day it was to be observed that the towns were always in favour of reforms and the counties against them. The Church subsequently acquired great wealth, and many splendid ecclesiastical structures were raised at this time. About the year 1200 Pope Innocent III. succeeded to the pontifical chair. Upon the strength of what had been done by Hildebrand, he established the papal authority over all the powers of Europe, taking the crown off the head of even the English king, John—a proceeding which, by the way, led to the obtainment of Magna Charta. At the end of the thirteenth century, Boniface VIII. desired to make still greater efforts, and the consequence was, that Philip the Fair of France took means which certainly might be called treacherous, and having got hold of him, kept him in durance for a few days. This, however, the Pope took so much to heart, that he died shortly afterwards. From this period might be traced the decline of the papal power. It would be seen that while the Papacy held unbounded sway art was pursued in an ecclesiastical direction only. Early in the twelfth century learning received an impetus. The monastic institutions had kept alive what remained of literature, and universities began to be established in Italy, in England, and in France. Platonic societies sprang up in Italy; printing was invented, and the transcribing of manuscripts became an extensive trade. Then came the study of ancient art. Pisa sent an expedition to Greece for specimens; but when Rome was subsequently ransacked, many fine Grecian works were found among the ruins. It was at this time that Michelangelo appeared upon the stage. His father wished to make him a wholesale clothier; but he had a thirst for art, and his father, finding it impossible to make him a clothier, was obliged to comply with his son's request, and allow him to become an artist. The character of Michelangelo might be drawn from the manner in which he deported himself with reference to the powerful pontiff Julius II. The Pope hearing of his extraordinary abilities, and conceiving the project of erecting a magnificent mausoleum for his own remains, sent for the artist, to execute the works. Michelangelo was, however, kept waiting in the Vatican, as the Pope was "not at home;" and so offended was he at this discourtesy, that he sold his goods to the Jews, and returned incontinently to Florence. The Pope sent messenger after messenger to him, and finding he would not come, undertook the conquest of Bologna. It was then, and not till then, that Michelangelo consented to be reconciled to his patron, and subsequently executed the celebrated statue of Julius, in bronze, of which, however, there is now no trace left. His next great work was painting the ceiling of the Sistine Chapel, a surface of 132 feet by 44 feet. This was done by his single hand; and although it contained between 200 and 300 figures, any one of which might make the fortune of a modern painter, the whole was concluded within the space of about twenty months. Leo X. a man of elegant mind and refined taste, succeeded Julius II.; but he and the great artist could not get on together, and the latter was virtually banished for seven years, on an expedition to search for marble in some distant quarry. Having referred to the merits of Michelangelo as a painter, a sculptor, and a poet, Mr. Kerr proceeded to describe the patriotic manner in which he had exerted himself for the defence of Florence, and how adroitly he had succeeded in concealing himself, to evade the penalty of his heroism. From that concealment he was only drawn when he was told that the Pope wanted him to finish the sacristy of San Lorenzo. The world had never altered the opinion it had formed of his works. His last paintings were finished when he was seventy years of age. In 1546, after he had devoted some years to the study of the Scriptures and to the works of his old friend, Savanarola, he was called upon to take charge of St. Peter's. This was a duty which he at first declined to accept, owing to his increasing years; but he was ultimately induced to undertake it, and during the time he held the office, he executed a number of important works in connection with the church. Duke Cosmo of Tuscany repeatedly asked him to come to Florence, but nothing would induce him to return to it, and to all solicitations he replied that he liked the air of Rome, as it agreed with him. Having referred in eloquent language to the tranquil deathbed of Michelangelo, and to his reliance at his latest moments upon the divine truths of Christianity, Mr. Kerr described how peacefully he closed his eyes upon the world he had done so much to adorn and instruct. Thus, putting his foot upon the Rock of Ages, this mighty man of intellect went out into the night. Thus he died, and amid the fair circle of the just there was surely no man in all history in whose character and individuality the finger of God had more combined the mightiest majesty of intellect with the simplicity of the child, than in this rugged old high-priest of the beautiful.

Mr. Kerr having concluded, amid loud applause,

The Chairman proposed that a vote of thanks be accorded to him for his interesting lecture, which was carried by acclamation, and the proceedings terminated.

THE WARMING AND VENTILATION OF DWELLINGS.

THE "Report to the General Board of Health, by the Commissioners appointed to inquire into the Warming and Ventilation of Dwellings," has been published by order of the House of Commons.

The report contains, or consists of, six separate reports, of—1. Experiments in the board-room of the General Board of Health, on the temperature of the air, walls, and floor, and the hygrometrical states of the air. 2. Experiments at the Wellington Barracks in different soldiers' rooms, on the temperature of the air, walls, and floor, and the hygrometrical states of the air, as heated by different open fire-grates. 3. Experiments to determine the effects of duplicate panes of glass. 4. Experiments at the Wellington Barracks, to determine the physical relations of ventilation. 5. Experiments at the Wellington Barracks, to determine the chemical relations of ventilation, by H. E. Roscoe, esq. And, 6. Experiments in the board-room of the General Board of Health, to determine the direction and force of currents in the air, instituted by J. F. Campbell, esq.

The reports are of a technical, detailed, and diffuse description, with diagrams and sketches to illustrate them.

In the appendix is an abstract of numerous specifications of patents, bearing upon warming and ventilation, applicable to dwelling-houses.

On the question of warming apartments, one result deduced from all the experiments made is, that it is evident that smoke from almost all fires for warming rooms may be prevented. The most effectual remedy for smoky atmosphere in towns, say the authors of the report, would be the use of fireplaces constructed to prevent the formation of the smoke, or, in other words, to effect a perfect combustion of the coal. Various plans for achieving this object, including Arnott's improvement of Cutler's grate, are noticed.

The commission recommended that the area of the supply-pipe or channel (of air) be larger than the area of the smallest part of the chimney flue, in order that fresh air in excess of that required for combustion may be supplied into the room, to the amount of 15 to 20 feet per minute for each occupant; by which arrangement, the fresh air introduced for the purpose of ventilation may be warmed or tempered before entering the apartment; that the supply air-channel be provided with a closing apparatus, and that, for the ventilation of rooms, exits should be provided for the spent air near the ceiling, either by perforations in the cornice at different parts of the room, by apertures made near the ceiling, or by one sufficient aperture leading into the chimney, with a rarefier, in case of need, to such an extent as to remove from 15 to 20 cubic feet per minute for each occupant. The supply of fresh air should be provided by a channel or tube under the floor, and not derived from accidental sources, so as to prevent all whistling of windows, pressure upon doors, and cold draughts.

In regard to fire-grates in general, the commission recommend—1. The use of reflecting surfaces to direct an increased amount of radiated heat into rooms; 2. That the chimney-flue be of small dimensions (not above 9 inches diameter at the widest part); 3. That chimney-flues should not be situated in the outer walls of houses so as to become chilled by contact with the air outside; 4. That each flue be provided with a closing apparatus; 5. That the aperture for the escape of the smoke be placed at the back of the fire so as to increase the intensity of combustion and promote the radiation of heat; 6. That fire-brick linings to grates should be in general use; 7. That sunken ash-pits and hidden ash-pans be employed to prevent the diffusion of dust; 8. That the fire be not on a level with the floor (made evident by

experiments with Leslie's grate); 9. That, as a rule, the fire-grate is best placed which is seen from the greatest number of points in the room; 10. That a good frontage of fire surface be exposed; 11. That those stoves be used which prevent the formation of smoke, which represent imperfect combustion and wasted fuel; and, 12. That the fire-grate should be studied in its construction with the view to its effecting a better and more economical consumption of fuel and a more equal distribution of heat, not as a contrivance for the ventilation of rooms. It will not answer the two-fold purpose of warming and ventilating. The altering of a common grate into an Arnott stove has entirely failed on trial.

A proposed plan for the improvement of the construction of dwelling-houses is recommended, and illustrated by diagrams; and among other things, the use of double panes of glass in small, and of double sashes in large, rooms, is suggested. The use of gas or coke would preclude smoke, but the former is too expensive for heating purposes in places remote from coal districts.

The Wellington Barracks reports state that "a more defective system of warming and ventilation could not be devised than that which is there exhibited." Condemning the want of space allotted to the soldiers, and the disgusting practice of using open tubs as urinals in barrack-rooms, the commission urgently direct the attention of the Minister of War and the Horse Guards to "the *absolute necessity*" of providing more room and accommodation for soldiers in barracks, and that, instead of 500 cubic feet of space, 700 to 800 cubic feet be allowed per man, or, as in the case of the Wellington Barracks, only ten persons occupy the space allotted to sixteen; and that these regulations be enforced throughout the United Kingdom. A more economical system of heating and ventilation is also recommended.

The report is signed by Mr. W. Fairbairn, F.R.S., Mr. James Glaisher, F.R.S., and Mr. C. Wheatstone, F.R.S. Mr. Lyon Playfair objected to append his name to the report *pro formâ*, on the ground that his avocations afforded him no time for attending to the work of the commission.

THE PROGRESS OF TELEGRAPHING.

In a former paper we drew attention to some of the early methods used in this country to convey a signal rapidly over large districts.* The flaming beacon, the clouds of smoke created on lofty places, and which could be covered up and allowed to rush forth at intervals, afforded means of spreading information of the occurrence of looked-for and expected events:—the rising of the different clouds of smoke might convey notions of the number of days which were to intervene between certain events:—but none of the ancient signals used in England could fulfil the herald's functions, and convey messages in what may be called a readable form. It is said that both the Greeks and Romans had a useful system of telegraphs. A writer on this subject mentions that in a Greek play, which commemorates some of the particulars of the Siege of Troy, a warden descends from a tower on which he had watched ten years for that purpose, and announces that Troy has fallen. This might have been communicated to him by a simple signal; but it is understood that the Greeks made use of pots filled with lighted twigs and straw, over which they poured oil, and these, being placed in certain positions, expressed various letters.

In the obscurity of the past, it is not, however, very easy to discover to what extent of perfection the system of telegraphing was carried by the civilised nations of antiquity. It is certain that the knowledge, if ever extensive, was for long lost, and the first hint at any improvement upon the beacon-fires seems to have been conveyed by that remarkable man, the Marquis of Worcester. In his "Century of Inventions," published in 1663, he says:—

"No. 6. How at a window, as far as eye can discover black from white, a man may hold discourse with his correspondent without noise made or notice taken, being according to occasion given and means afforded, *ex re natâ*, and no need of promises beforehand, though much better if foreseen and means prepared for it, and a premeditated course taken by consent of parties."

"No. 7. A way to do it by night as well as by day, though as dark as pitch is black."

In examining the accounts of the rise and progress of the telegraph, it is evident that one of the chief difficulties was to make a signal of sufficient size to be visible at a considerable distance, and which could be worked by comparatively easy means, and with sufficient quickness.

In 1684, Dr. Hooke, who had some experience at the siege of Vienna by the Turks (it seems strange at the present day to read of such a siege), devised a means of telegraphing by characters cut out of the bottom of a cask, in which lights could be placed. He hinted at movable letters, and directed attention to the *telescope*, which had been brought into use, as a great means of assisting in this method of conveying news.

Although, in the times of bad roads, and necessarily slow means of conveyance, the need for improved means of communication must have been evident, it appears that but little advance was made with the telegraph. Rockets had been used in a peculiar way as signals, so had cannon, but little satisfaction was given, and carrier-pigeons were used as quicker messengers than horses.

In 1767 Mr. R. L. Edgworth tried experiments, and endeavoured to show the possibility of communicating intelligence by a swift and unexpected mode. Amongst other things, this gentleman arranged the wands of a common windmill, and by alteration of the sails contrived a system of signals.

During the troubled times in France (1796) two systems of telegraphing were introduced. That invented by M. Chappe was considered the most perfect. The central post of M. Chappe's telegraph was the Tuileries, and from that point messages were conveyed from and sent to different districts of France. This seems to have been a very complicated affair, and consisted of seven indicators, each of which could be changed into seven positions; and the number of different signs which could be made by this apparatus would be 7 by 7 by 7 by 7 by 7 by 7 by 7, which would amount to 823,543. The principle seems to have been an extension of fig. 5. The fame of M. Chappe's

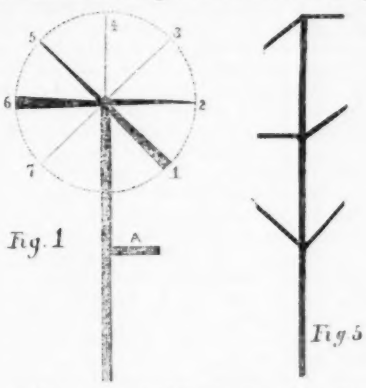


Fig. 1

Fig. 5

telegraph soon reached England, and the Government employed some competent persons in Frankfort to prepare a model, with which various experiments were made, and eventually a system was organized by which messages were passed from the Admiralty to Deal, Portsmouth, and other parts of the sea-coast.

In 1806 Napoleon Bonaparte directed his attention to the improvement and simplification of the French telegraph; and in that year a system was devised, from which but little change was made until the electric telegraph rendered the old system a matter of the past.

During the time that so much consideration was given to the signals on land, attempts were made to improve those in use at sea. Admiral Kempenfelt simplified this system, which was still further improved by Sir Home Popham. In addition to flags of different colours, forms, and devices, a movable instrument, similar to that shown in fig. 1, was fixed in suitable positions of the ships; and as in the movement of the vessels the signal when pointing at 3 or 5 might be mistaken for 4, when the view came sideways, an arm ⋀ was added to show when the signal was in right position. In 1814 Thomas Lynn published a plan of ship signals at the expense of the East-India Company; and although this was used with marked success by the company's ships, it appears to have been passed over without notice by the Home Government. It would, however, require more space than we can at present spare to give full particulars of the ship-signals as they are still in use: it is nevertheless evident, that great pains have been taken to arrange a dictionary of phrases which can be expressed by the arrangement of colours, &c.

The engraving, fig. 1, will show how letters and numerals may be denoted by the position of the arms: for instance, 1 may represent A; 2, D; 3, C; 4, D, and so on; and by means of other arrangements of the index, the letters of the alphabet could by this means be made out.

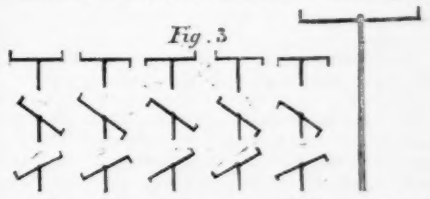
In 1817 a series of three boards, on which were represented bold and distinct forms, shown on one side of each board in black, and on the other white relieved by black (see fig. 2, A), by changing the

Fig. 2.A

position of the boards: it will be seen, by referring to fig. 2, B, that four distinct black and four distinct white signals can be made by each board—in all twenty-four, a number sufficient to express the useful letters of the alphabet. While these matters were in progress, plans of conveying commands amongst large bodies of military met with much consideration, and it was found that expression could be given by men at certain stations using flags, handkerchiefs, and wicker-work dials, in particular positions.

The telegraph (fig. 3), which is of the shape of

Fig. 3



a T, is capable of giving a considerable number of signals. It is very simple, and easily worked, which seems to have been always an important consideration; and much ingenuity has been employed in contriving machinery for moving the arms of the telegraphs with ease and certainty.

At length, in 1816, Sir Home Popham improved upon the system then in use in France, and introduced the telegraph which was once so familiar to those who passed by the Admiralty (see fig. 4).

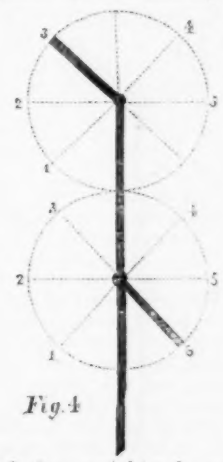


Fig. 4

This consisted of an upright pole, on which were two movable arms, which were able, in a very distinct and easy manner, to express forty-eight different characters, sufficient to express the letters of the alphabet and numerals, and to leave thirteen signals of abbreviations. Only a few years ago this telegraph was looked upon with wonder. Compared, however, with that which the application of electricity has given us, by means of which messages are wafted from country to country with lightning speed, it is so coarse, clumsy, and circumscribed, that wonder is felt at the satisfaction with which it was regarded.*

* See Vol. XVI.

* The foreshadowing of the electric telegraph was shown by a correspondent of *Notes and Queries* some time ago, who sent a translation from a work in German by Schwenter, entitled, "Deliciæ Physico-Mathematicæ," dated 1636. Schwenter himself quotes the invention from a *previous* author:—"How two people might communicate with each other at a distance by means of the magnetic needle: If Claudius were at Paris and Johannes at Rome, and one wished to convey some information to the other, each must be provided with a magnetic needle so strongly touched with the magnet that it may be able to move the other from Rome to Paris. Now, suppose that Johannes and Claudius had each a compass divided into an alphabet according to the number of the letters, and always communicated with each other at six o'clock in the evening. Then (after the needle had turned round 3½ times from the sign which Claudius had given to Johannes), if Claudius wished to say to Johannes 'Come to me,' he might make his needle stand still or move till it came to *c*, then to *o*, then to *m*, and so forth. If now the needle of Johannes's compass moved at the same time to the same letters, he could easily write down the words of Claudius, and understand his meaning. This is a pretty invention, but I do not believe a magnet of such power could be found in the world."

ST. MARTIN'S SCHOOL OF ART.

THE annual *conversazione* of the students of this School of Art was held on Friday evening, the 15th, at Castle-street, Long-acre. There was a large collection of objects of interest, and the attendance of members and their friends was exceedingly numerous. The chair was occupied by the Right Hon. W. Cowper, M.P.

The Rev. Mr. Maule, as hon. secretary to the School of Art, gave a sketch of the progress of the institution since the former gathering, a twelvemonth previously, and showed how they had gradually relieved themselves from debt and improved the school. These results had been accomplished solely through the fees paid by the students; but it was only right to state that they were under great obligations to the Department of Science and Art for the kindness with which they had acted. They were informed by Mr. Casey, in his last return in February, that there had been a steady increase in the number of scholars, which from that School of Art were now returned as 210, being considerably in excess of the statement of last year. They were also enabled to point to a gratifying increase in the prizes, no less than twenty-five medals having been obtained by students in that School of Art, of whose works twelve had been selected for competition for the national medals. He remembered some years ago that the school was not very orderly, but that, on the contrary, it was often noisy, and there were sometimes reports of the gas going out, and of the room being left in darkness: of late, however, there had been a remarkable change in this respect, and the school was now conducted in a remarkably good spirit, and with strict attention to the object of their studies. These results he attributed to two causes: one was the kind and gentlemanlike demeanour of the master, Mr. Casey, and his assistant, Mr. Burchett, to all the students; and the other, to which especially he attributed the marked improvement in the tone of the school, was that in it, unlike, he believed, the majority of the other schools, they had persons of both sexes studying drawing together.

The Chairman then proceeded to deliver to the students the prizes which had been awarded to them as successful candidates at the late competition. These consisted, in each instance, of a case of mathematical instruments, and it was stated, incidentally, that four similar prizes would entitle the recipient to one year's gratuitous education in the School of Art.

The Chairman then, addressing the assembly, said he had often heard of the St. Martin's School of Art, and of the success which had attended its studies, but he was not prepared for a display of such a satisfactory character as that which he had witnessed. The spaciousness of that apartment, the numbers who were assembled in it, the success which had been attained as exhibited by the prizes which had been delivered, could not fail to be gratifying to any one who took, as he did, a warm interest in the progress of Schools of Art. He had been particularly glad to hear the statement that the school had so far succeeded as to be enabled speedily to become self-supporting. This was as it should be; for the Science and Art Department, the working of which was, in many respects, so important, looked not so much to the perpetual support of schools or of institutions as to the development of the energies of different local schools, making them to depend on their own resources, and to carry on their objects without any external aid. The existence of that department, and the rapid spread of schools like theirs throughout the country, he regarded as sources for great congratulation to all lovers of art; and, looking back to its past history in this country, it was interesting to see how one thought had sprung from another, and how one good work had incidentally and unexpectedly produced other good results. The Department of Science and Art, as a branch of the Government, sprang, as was well known, from the Exhibition of 1851. Those who were active in establishing that wonderful creation were not, of course, thinking of Schools of Art, and yet their acts had resulted in much of the good that they now saw around them. At that Exhibition the art manufactures of this country were shown to be so deficient in comparison with the art manufactures of other nations, that some effort became necessary in order to place our intelligent, industrious, and hard-working artizans on a level with those of other countries. This primary thought soon expanded, and from a commencement which merely contemplated the assistance of art-manufactures, it had ended in the establishment of an art-education, in a popular form, suited to all classes in the country and to the circumstances of the different provincial towns. Formerly the opinion was very prevalent that any great knowledge of art, any great appreciation of painting, or taste for sculpture, belonged rather to a small and narrow body of men and women, whose high cultivation, whose refinement, and whose leisure enabled them to devote special attention to such subjects, and to travel in those parts of the Continent where such information was most usually acquired. But the fact was now established, and it had been brought before our eyes in such a manner that no person could doubt it, that the love of art, or the appreciation of painting, of drawing, or of sculpture, was not confined to any class of the community, to any body of persons, or to those who were employed in any particular occupation. As widely as the sense of beauty was found in the human breast, so far was it possible to impart cultivation to those natural powers of imagination which were born with all equally, with rich and poor, with those who were busy and with those having leisure. But what had not been acquired until very recently in this country was some public means of developing those faculties which had lain dormant: they required schools where popular instruction could be given in drawing and in modelling, and a museum where persons could easily behold the best examples of ancient and modern art, and so have their perceptive faculties exercised and developed. At the present moment measures of the kind were so fully extended, that they had become settled institutions in the country; the immediate wants of the lovers of art were pretty well satisfied, and provision had moreover been made for the increasing demands and for the rapidly growing desire which was manifesting itself for the extension of this class of education. Parliament had already voted a sum of something like 80,000*l.* a-year, which was to be disposed of by those having charge of this particular branch of the national expenditure. It was now an admitted fact, that popular education was insufficient, if confined simply to teaching out of books: the eye and the hand must also come in for their share of instruction and cultivation. Every one would be ready to coincide in the opinion that there was scarcely any business or occupation in which a person, whether man or woman, could be engaged, where some knowledge and experience of art-drawing would not serve them and be useful to them. The object, however, was not so much to effect the practical results which might arise from Schools of Art, as to ensure the complete education of all the faculties of those who attended them; and it was desirable that these schools should flourish, if they only took into account the mere recreation and amusement which might arise from a knowledge of drawing. The great desideratum in the present day was some innocent recreative occupation, which would afford rest after the labours of the day, at the same time that to those who desired to acquire instruction it would enable them to do something which would increase, not only their own powers of enjoyment, but place them in a position of greater usefulness to themselves and to others. Such a desirable object they certainly found in the study of art, because it was not only a knowledge of the art itself, but the power of observation, and of appreciating nature itself, which was gained in this manner. How very few persons there were, for instance, who looked much at those gorgeous sights which were constantly to be seen in the skies: even when the most glorious sunset was taking place, persons for the most part passed heedlessly along the crowded thoroughfare; and the number of those were but few who raised their eyes from the level of the pavement to notice what was going on above their heads. The late Mr. Rogers, who was remarkable for always indulging his sentiments of the beautiful in this respect, was in the habit of walking up and down in the Green Park at evening when the sunset was taking place; and he enjoyed the sight so much himself, that he used to stop persons and invite them to look up into the sky, and share with him the magnificence of the sight. But he used to say that he could not find one person in twenty who took the slightest interest in what he was pointing out, and that they only looked on him as a troublesome, strange old gentleman, who was trying to point out something which was not in the least worth seeing. It was astonishing the number of beauties which persons lost by never having trained their powers of observation; for persons who were accustomed to pictures would at once see in landscapes new features of interest and new beauties which those who were strangers to the art of painting would entirely fail in discovering. Even in London, for instance, persons who were accustomed to take an interest in such drawings as Prout had given of Venice, and the different towns of Germany and of Italy, would find in some old houses near Aldgate pump, or in many of the back lanes of the City, new objects of interest, which the crowd that passed them by were totally unable to appreciate.

Mr. Redgrave, R. A. regretted the absence of Mr. Ruskin, as they were all aware of the interest which he took in the school; but after the discourse which they had just heard from their excellent chairman, after his description of the beauties of art and its benefits to mankind, it could hardly be said that the meeting had sustained any loss. He himself had had the pleasure of serving under the chairman in the Department of Science and Art, and was well aware how conversant Mr. Cooper was with the whole action of the Department, and how strong was the interest which he felt in all that belonged to art, and its propagation in the country. The excellence of the School of Art in which they were then assembled, was shown by the merit of the drawings, and by the number of rewards taken by the students. There were naturally one or two short-comings here and there, and he trusted that the students would be constant in their studies, and not give way to the desire to make pretty drawings merely. He was quite sure that not only was there a great advantage, individually, to the students in pursuing their course of instruction in the St. Martin's School, but that they also acquired a substantial benefit in improving their perceptive powers, and arming themselves with what would be most valuable in after life. Mr. Redgrave concluded by wishing success to the school, and expressing a hope that it might soon become self-supporting.

The proceedings terminated with a vote of thanks to the master of the school, Mr. Casey, and to his assistant; also, to the Rev. Mr. Maule, the honorary secretary; and the Right Hon. Mr. Cowper, for presiding.

THE ARCHITECTURAL EXHIBITION.

CONCLUDING NOTICE.

THOSE competition designs at the Exhibition in Conduit-street, which are for buildings for religious uses of the Established Church, in character of detail whilst in somewhat inadequate consideration of use and ritual, and of art, have the same distinctiveness from designs for other places of worship, as we have already referred to. Of the designs for Heigham New Church, one of the two exhibited, that by Mr. J. Brown (248), indeed, adopts with the plan of the cross, an octagon at the intersection, developing itself externally—an arrangement reducing some of the disadvantages of transepts when connected with a long chancel. Yet, in general decorative character, the design is inferior to that by Mr. J. H. Browne (249, 250, 272, and 273), altogether a successful application of red brick walling, and stone ornamental details. This design has a well-proportioned tower and spire, and a common arrangement of the plan. The interior view is drawn with capitals of the columns on each side, in oblique perspective, or as though with distinct observations from a near place of view, in lieu of the ordinary method of using one vanishing point, or at most two points, for the picture.

The drawing of "St. Paul's Church, Tottenham, now in course of erection" (275), does not give the idea of commanding excellence in the design, which is that of a very plain Early English structure with tower and spire. Some of the other designs might have been preferred with advantage; though omission of tower and spire in favour of a turret, has not been attended with success in cases where by plan or dimensions great importance is given to the body of the church. Mr. T. E. Knightley's design "one of the six selected" (274), and one of the best, has somewhat this character—resulting partly from the predominance of the east end, by a polygonal apse. Mr. James's design (276) affords satisfactory treatment for a church of moderate dimensions—as in the management of the bell-gable over the roof of the transept. A design for the same building (271 and 277), by Mr. F. G. Lee, makes much use of colour in the interior.

Amongst other drawings associated with competitions, are views of some of the designs for the Scarborough Infirmary. Messrs. Oliver and Lamb exhibit two designs (265 and 266), one on a more extended site than the other. The arrangement shown in their plan, they say, is "based on the suggestions contained in the *Builder* and elsewhere," and is made to get the principal wards fronting the sea,—the wards being "open on all sides," and having beds "only between the windows." 1,500 cubic feet are allowed to each patient. Both designs are of plain character, for brick and stone: one is Italian, and the other has pointed arches to the windows. Portions of the upper stories are set back, to admit of verandahs to one story and a terrace to the story at the top. The oblique arrangement on the ground, of Messrs. W. J. Green and L. De Ville's design (268), which has a plan in the form of the letter T, may afford some

advantage to compensate inferiority of position of some of the windows,—which are turned from, rather than towards the sea,—though the first impression given by the design is, that the arrangement was chosen with regard to novelty of external effect.

Designs for the schools at Forest-hill, are exhibited by Mr. H. M. Eyton (280); Mr. J. G. Stapleton (283); Mr. J. Nicholls (284); and Mr. J. Messenger (285). The last named, the accepted design, is shown in a sketch too roughly executed for any safe opinion as to the propriety of the selection. Amongst the schools erected, shown in drawings, are those at Upton-on-Severn (262), by Mr. G. R. Clarke, good plain red brick and stone, Gothic; and amongst those about to be erected is the "School and Mistress's House," Seer Green, Beaconsfield, Bucks (261), by Mr. L. G. Butcher, an effective composition of Gothic character. The coloured materials, as string-course at the springing of the arches, are managed with good taste; and the same author has a capital "Parsonage-house" (152), to be erected at Ilfracombe. Mr. R. Hesketh exhibits two views (335, 336) of a design for the "School and Soldiers' Institute at Chatham." In the third room are two designs for "the Cambridge Asylum" by Mr. J. Ellis (235, 236); and one (257) for the "Royal Albert Benevolent Society's Almshouses, Cambridge," we suppose, the same subject, by Mr. C. Moore, better in grouping than in structural points of the window arches and mullions; also, a design, by Mr. C. Fowler, jun. for the new Town Hall, at Wokingham (259), with pointed arches, and a low pediment, the horizontal cornice of which is broken by a pointed arch enclosing a shield. Mr. Fowler also exhibits (278), "Parts of a Design for a Public Building, submitted in competition," treated after the model of the Italian palaces, as regards the internal quadrangle and loggias. A design by Mr. H. M. Mileham (264), of Gothic character, materials red and black brick and stone, has not the symmetry which is essential to the effect of a public building, the hall even of the smallest town.

The "Plan and Elevation of a Suspension Railway Girder Bridge, to carry the Railway and Main Road across the River Foyle, at Londonderry" (264 *a*), as designed by Mr. P. W. Barlow, and revised and recommended by Sir W. Cubitt, the "architectural features" by Mr. E. C. Robins, appears to be the design of which mention was made some time back, when the matter of the structural sufficiency was under discussion. The drawing, however, being to a small scale and unaccompanied by details, we are not able to judge whether there is any considerable difference from the system of construction in the Chelsea bridge, where the girder also is employed, though only for an ordinary roadway, and probably with no view to primary support. The question, whether the resistance to strain of the suspension part of the construction and the girder part would be simultaneous, is a very interesting one, and still not conclusively settled. The design in the present case shows two spans of 451 feet each (Hungerford bridge has, we believe, a centre span of 632 feet 4 inches), and a pier in the centre, carried up as a tower, 140 feet in height, the girder being on the lattice-work principle. The decorative part of the design, imitative of Gothic archway and turrets, with details of panelling, is not very successful. This is scarcely the fitting opportunity to inquire into all reasons of the moderate success in architectural effect, of some of the most considerable works of recent engineering construction. But, noticing that effect is the best where least was attempted, as in some viaducts over valleys, and the earlier suspension bridges (the works of Telford may be mentioned), we are justified in saying that the object in such cases, just the same as in all architectural design, is one that demands an appearance of consistency in every part, with the structural office. The errors by engineers have been made needlessly, or through affectation of architectural detail, which, being caricatured, would have been better absent, and those where architects were employed, through the attention to mere mouldings and ornaments, and want of preliminary inquiry into what form was dictated by requirements. The Italian bell-tower character of the piers of some bridges is a mistake in architecture of the worst kind; mere plain piers, with battering or curved sides, would be, strictly speaking, more *architectural*. It by no means follows that, as some would seem to believe, expression of the use and structure of a thing is expression also of beauty; nevertheless, it should be the first axiom for the student that there can be no architectural beauty—that is to say, no complacency, or the impression aimed at—unless there be consistency of the kind spoken of. Yet, set an architect to design a piece of furniture, or give to a decorative artist a new material, and, instead of first studying, the former what are the requirements of special use and construction, and the latter what are the distinctive properties and advantages, the chances, judging from experience, are, that both individuals will straightway invest the object or the material with forms which are the attributes of something else. As it is not unlikely that the suspension principle will be adopted in a greater proportion of the bridges to be built in proximate years, it is in their case, as generally, important that such errors as we have alluded to, should be pointed out, and the reasons of them understood.

We have omitted to name, amongst the drawings of works in progress, the "Town Hall, Folkestone" (150), by Mr. Messenger, a simple but good version of an ordinary Italian type of Corinthian three-quarter columns over a rusticated basement, with a recessed porch and Venetian window with balcony. The columns, however, are out of drawing, and the crowning central feature is bad. The interior view (6) is certainly unsightly; the bands on the ceiling, longitudinal and transversely, do not harmonize. Also we should name the curious drawings (166) of "Alnmouth by the Sea: transformation of Old Cottages and Granary into Four Dwellings;" clever in many respects, though imitative; but no architect could work upon a drawing such as one of those in the frame, with the accessories of illuminated border, and flags in the view as though cut out of board, without being mentally injured the while. "The Strangways Arms Railway Inn, Evershot, Dorset" (304), by Mr. R. H. Shout, has the merit of suitableness of character; and so may have the work next to it (305), by Mr. J. J. Laforest, the polychromed and galvanized iron structure erected for dancing at Highbury Barn Tavern.

Amonst the studies in design we should give a first place to the "Suggestions for Public Drinking Fountains" (56), by Mr. A. W. Blomfield. They deserve attention at this time, as well from their merit and variety, as from the subject. There are six designs, all Gothic in style, and some of them for metal-work enriched with colour. Two of the designs are plain in character, with basins of metal; one has a canopy, and another has lanterns introduced. They are for different positions, isolated or attached to the railing of a square; and some of them have stone basins on dwarf shafts, and of circular or other forms of plan. In one case, rests for burdens are introduced. Several of the designs might lack the solidity and durability required; but there can be no doubt of the merit of these "suggestions;" and we hope some of them may be turned to account. The "Memorial Fountain" (57), by Messrs. Driver and Webber, is not quite so happy; and no dependence should be placed upon external colour for effect in this climate, if to be executed by painters' work.

Mr. W. Papworth exhibits three drawings, too prominent to be omitted from this notice, though we are not sure that their value as studies accords with what our good opinion of his abilities would lead us to anticipate from him. The "Drawing, partly in perspective, of a Design for rebuilding the Front Wall to a Draper's Shop in a country Town" (176), is not successful as satire; and by many will be misunderstood. The argument against the idea of utility as the sole need for production of beauty in architecture, required to be stated; but the drawing, No. 176, does not effect the object.

The "Study for a Palace Façade" (20) is an elevation designed in the French Italian manner, and well treated. Mr. G. H. Tait's "Design for a New Façade and Enlargement of the National Gallery" (157), would do away with the portico, and not effect an adequate improvement. The "Design for a Circus," by Mr. T. Vaughan (140), well deserved the Soane Medallion from the Institute of British Architects.

Some interesting sketches and drawings of old buildings are contributed by Messrs. Nesfield, Lightly, Newton, I'Anson, Christopher, F. P. Cockerell, Lockyer, Penrose (including a capital sketch of the Interior of Como Cathedral—134), W. P. Griffith, and others whose works have been before named. Amongst these, Mr. Goodchild's drawings of Sir Christopher Wren's design for St. Paul's Cathedral (328, 329) are prominent; and we are glad to have renewed acquaintance with Mr. Falkener's Interior of the Parthenon (310), which, for the controversial question involved, will be better understood by reference to a statement of the question which we gave at length, last year, when we mentioned the drawing in the review of the Exhibition at the Royal Academy.

We have now brought our series of notices to an end. We have at various times offered suggestions for the improvement of the catalogue of the collection, or classification in the hanging. Many of these have been adopted; and the result this year, is certainly more favourable to uses of the gallery as a place of study. Further attention will doubtless be given to collecting together drawings of the works in progress during each year, to the subjects of the lectures, and other matters. The Exhibition can be made to serve powerfully the advancement of architecture with the public; and we all are greatly indebted to those whose personal exertions have brought about the present state of affairs.

THE HARMONIC LAW OF NATURE.

ARCHITECTURAL ASSOCIATION.

AT a meeting of the Association held on Friday, the 15th, Mr. Rickman read an elaborate paper by Mr. D. R. Hay, of Edinburgh, entitled "An Attempt to Explain the Harmonic Law of Nature, and how it may be applied in the production of Architectural Beauty."

The writer said,—It was justly remarked, in the "Record of the New York Exhibition of 1853," that "it is a question worthy of consideration how far the mediocrity of the present day is attributable to an overweening reliance on natural powers and a neglect of the lights of science;" and there is expressed a thorough conviction of the fact that, besides the evils of the copying system, much genius is now wasted in the acquirement of rudimentary knowledge in the slow school of practical experiment, and that the excellence of the ancient Greek school of design arose from a thoroughly-digested canon of form, and the use of geometrical formulas, which make the works, even of the second and third-rate genius of that period, the wonder and admiration of the present day.

That such a canon of form, and that the use of such geometrical formula, entered into the education, and thereby facilitated the practice, of ancient Greek art, I have, on a former occasion, expressed my firm belief; and that belief is founded on the remarkable fact, that for a period of nearly three centuries, and throughout a whole country politically divided into states often at war with each other, works of sculpture, architecture, and ornamental design, were executed which surpass in symmetrical beauty any works of the kind produced during the 2,000 years that have since elapsed. So decided is this superiority, that the artistic remains of the extraordinary period to which I allude are, in all civilized nations, still held to be the most perfect specimens of formative art in the world, and even when so fragmentary as to be denuded of everything that can convey an idea of expression, they still excite admiration and wonder by the purity of their geometric beauty.

So universal was this excellence, that it seems to have characterized every production of formative art, however humble the use to which it was applied.

The common supposition, that this excellence was the result of an extraordinary amount of genius existing among the Greek people during that particular period, is not consistent with what we know of the development of human genius in any other direction, and is, in the present state of art, calculated to retard its progress, inasmuch as such an idea would suggest that, instead of making any exertion to arrive at a like general excellence, the world must wait for it until a similar supposed psychological phenomenon shall occur.

Indeed, history tends to prove that this long period of universal artistic excellence throughout Greece could only be the result of an early inculcation of some well-digested system of correct elementary principles by which the ordinary amount of genius allotted to mankind in every age was properly matured and cultivated, and by which, also, a correct knowledge and appreciation of art were disseminated amongst the people generally. Müller, in his "Ancient Art and its Remains," also shows clearly that some certain fixed principles, constituting a science of proportions, were known in Greece, and that they formed the basis of all artistic education and practice during the period referred to. But the principles seem soon thereafter to have fallen into disuse, and the knowledge of their nature and use lost.

Such are the principles I have long laboured to discover, and at last have been led to believe from high authorities that I have fully succeeded; and I shall now proceed, as on former occasions, to explain their nature and origin. * * *

PARIS ARCHITECTURE: A SHOP-FRONT ON THE BOULEVART DE STRASBOURG.

The physical part of my theory is very simple, and consists in the hypothesis that the eye estimates not by distance but by direction, not by complex proportion, but by simple division. It assumes that all the angles of a composition are aliquot parts of some given angle, and consequently related to each other by the same direct relations which govern the notes in music. Thus the æsthetic pleasure derived from listening to the beautiful in musical composition, and from contemplating the beautiful in works of formative art, is in both cases simply a response in the human mind, to artistic developments of the great harmonic law of nature upon which the science is based.

Although the eye and the ear are two different senses, and, consequently, various in their modes of receiving impressions; yet the sensorium is but one, and the mind by which these impressions are perceived and appreciated, is also characterized by unity. There appears, likewise, a striking analogy between the natural constitution of the two kinds of beauty, which is this, that the more physically æsthetic elements of the highest works of musical composition are melody, harmony, and tone, whilst those of the highest works of formative art are contour, proportion, and colour. The melody or theme of a musical composition and its harmony are respectively analogous:—First, to the outline of an artistic work of formative art; and, secondly, to the proportions which exist amongst its parts. To the careful investigator these analogies become identities in their effect upon the mind, like those of the more metaphysically æsthetic emotions produced by expression in either of these arts. * * *

We assume that the standard of symmetry, so estimated, is deduced from the simplest law that could have been conceived—the law that the angles of direction must all bear to some fixed angle the same simple relations which the different notes in a cord of music bear to the fundamental note; that is, relations expressed arithmetically by the smallest natural numbers. Thus the eye is guided in its estimate by direction rather than by distance, just as the ear is guided by number of vibrations rather than by magnitude: both it and the ear convey simplicity to the mind without effort, and the mind with equal facility receives and appreciates them.

As we in all cases refer direction to the horizontal and vertical lines, and as the meeting of these lines makes the right angle, it naturally constitutes the fundamental angle, by the harmonic division of which a system of proportion may be established, and the theory of symmetrical beauty, like that of music, rendered susceptible of exact reasoning.

Let, therefore, the right angle be the fundamental angle, and let it be divided upon the quadrant of a circle into the harmonic parts already explained, and the following terminology may then be applied in the harmony of form.

When a right-angled triangle is constructed, so that its two smallest angles are equal, it may simply be termed the triangle of ($\frac{1}{2}$), because the smaller angles are each one-half of the right angle. But when two angles are unequal, the triangle may be named after the smallest. For instance, when the smaller angle, which we shall here suppose to be one-third of the right angle, is made with the vertical line, the triangle may be called the vertical scalene triangle of ($\frac{1}{3}$), and when made with the horizontal line, the horizontal scalene triangle of ($\frac{1}{3}$). As every rectangle is made up of two of these right-angled triangles, the same terminology may also be applied to these figures. Thus the equilateral rectangle, or perfect square, is simply the rectangular of ($\frac{1}{2}$), being composed of two similar right-angled triangles of ($\frac{1}{2}$); and when two vertical scalene triangles of ($\frac{1}{3}$), and of similar dimensions, are united by their hypothenuses, they form the vertical rectangle of ($\frac{1}{3}$); and in like manner the horizontal triangles of ($\frac{1}{3}$), similarly united, would form the horizontal rectangle of ($\frac{1}{3}$). As the isosceles triangle is, in like manner, composed of two right-angled scalene triangles joined by one of their sides, the same terminology may be applied to every variety of that figure. Thus, the four elementary figures which belong to all the forms employed in architecture are, in all their varieties, ruled by a horizontal or vertical right-angled triangle, and are as follows:—

1. The equilateral rectangle.
2. The oblong rectangle.
3. The equilateral triangle.
4. The isosceles triangle.

The law by which these four elementary figures may be harmoniously combined in an architectural structure is a simple law of nature, and the mode of its application is easily understood. Two positions, however, require to be adopted; the first of which is, that the eye is influenced in its estimation of spaces by a simplicity of proportion similar to that which guides the ear in its appreciation of sounds; for it is reasonable to conclude, that an element which is so necessary to the satisfaction of the one sense, should be also requisite to the complete gratification of the other. The second is, that the eye is guided in its estimate by direction rather than by distance, just as the ear is guided by number of vibrations rather than by magnitude; and it may be reckoned equally reasonable to conclude, that the failure of all attempts to discover the operation of harmonic ratio among the various parts of the architectural structures of antiquity has occurred from length, and not direction, being made the standard of comparison.

Mr. Hay then went on to refer to the observations of Mr. Penrose, published in a former volume of the *Builder* [No. 539], and a communication on the subject from another writer, which also appeared there. He then further developed his system, and thus concluded:—The basis of my theory is simply my conviction of the fact that a figure is pleasing to the eye in the same degree as its fundamental angles bear to each other the same proportions that the vibrations bear to one another in a chord of music, and as the whole science of musical harmony depends upon the simple division into which a monochord when in a state of vibratory motion resolves itself by nodes into $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{5}$, with their multiples, $\frac{1}{6}$, $\frac{1}{8}$, &c.; so in like manner the whole science of proportion or harmony of form arises from a similar division of the quadrant of a circle. The highest standard of symmetry, so estimated, is thus deduced from the law that the angles of direction must all bear, to some fixed angle, relations expressed arithmetically by the smallest natural numbers. I am strengthened by high authority in the conviction that no other law can be devised half so simple as this; that it accords with the other laws of nature; being but another form of that great *law* of *least effort* which pervades and regulates the system of the universe; that the labour it imposes on the eye is simply to measure round a point, and that the measures it demands are the easiest and readiest which could possibly be required, viz. to estimate the halves and thirds and the other simple proportions of the assigned unit. Also that no other law could give such repose to the eye, or present its results to the mind in a form so plain and unmistakeable, for it is exhibited under a form which we know the mind to be capable of judging from, being the identical form under which the ear presents to it an harmonious combination of sounds; and it certainly is in perfect consonance with the wisdom of the Creator to find sensations so widely different as these brought back to the same ultimate type.

PARIS ARCHITECTURE: A SHOP-FRONT.

THE shop-front of which we annex an engraving partakes of the character of the architecture which has been made fashionable in Paris by M. Duban and M. Labrousse. It is situated on the new *Boulevart de Strasbourg*, and is occupied by a leading bookbinder. Above the entrance-door is a tablet of marble bearing the name of the occupier, and surmounted by a pediment, supported on each side by a chimera. In the tympanum are representations of the medals of the Great Exhibitions, of London, '51, and Paris, '55.

THE HANDS IN PICTURES.

IN looking, the other day, at a choice collection of engravings of the works of Michelangelo, Raffaelle, and other masters of a great period of art, we were struck by the numerous instances in which marvellous expression of the passions was given by the disposition and character of the hands of the figures—a matter which has been too little attended to by English painters. The practice of using the ordinary artists' models for the hands by some portrait-painters has led to several inconsistencies between the hands and countenance, which cannot fail to strike even those who do not observe very closely. An observance of nature, as it may be noted in the figures which are presented in every-day scenes, shows, in general circumstances, the somewhat firmly-clasped hand of the man of intelligence, its slow but impulsive working, which, if even the face were not visible, would express so much: contrast this with the listless and distended fingers of those who are without intellectual ideas or education, or the claw-like expression of the miserly man. When walking in the street the palms of some hands are presented on the line with the face, in others the reverse, and in these varieties it will be found that the same peculiarities of the hands are connected with certain physical and phrenological developments. This matter might be much extended, and made more clear by illustrations: our object, however, is just to hint the importance, in both painting and sculpture, of attending to the peculiarities and characteristics of the hands, and not to allow one pair of them to be combined with perhaps twenty or thirty heads.

Although not so strongly marked, that expression to which we have referred is still evident in the female figure; and wonderful are the signs which are exhibited by griefs and joys of life, by surprise, fear, wonder. Great actors and actresses have made more use of the power of expression in hand than our painters have generally done.

OHIO LIFE ASSURANCE AND TRUST COMPANY'S BUILDING.

THE extensive building represented by our engraving is erected at Cincinnati, in the State of Ohio, U.S. for the Ohio Assurance and Trust Company. Mr. J. K. Wilson was the architect. It is wholly of stone, and will serve to give an idea of the extent to which our transatlantic brethren indulge in their commercial buildings. Part of the cornice, at the time of its erection, fell, and caused the deaths of five men. In 1800 the population of Cincinnati was 750. In 1850 it was 115,436!

OHIO LIFE ASSURANCE COMPANY'S BUILDING, CINCINNATI, OHIO.—Mr. J. K. Wilson, Architect.

TO ASPIRING VOLUNTEERS.*

PERHAPS one of the greatest advantages an architect derives from foreign travel is the bolder and more elevated tone of mind produced by the constant study, or even long-continued contemplation, of monumental edifices and grandiose scenery, or the glorious combination of both, which the ingenuity of man has effected to delight the sons of men. Who that has visited the cities of the South will not, on perusing these words, call to mind the feelings of delight and gratitude, on some occasions even of awe, which have filled his mind on suddenly encountering some of these almost magic combinations! How often on entering a city before unknown to him has he not felt almost bewildered by the succession of noble buildings that met his view? How has he not been charmed by the picturesqueness of the groups? How has he not been awed by the infinitely more noble back-ground which nature has provided to these groups? His mind will revert to Athens and Girgenti, and Segesta, to the solemn Campagna of Rome; to smiling Florence, to busy Genoa, and I know not how many others; and then turning to his own land, he will, probably, think of picturesque Edinburgh, and try to console himself with the reflection that in this metropolis, even, there are one or two points of view which may not unfairly be compared with the above: for instance,—from the bottom of Waterloo-place, or the steps of the National Gallery. But alas! our sins are manifold.

The power of conceiving grandiose combinations is essential to the production of magnificent designs: where largely enjoyed it is undoubtedly a divine gift, and some no doubt, like other poets, have it by inspiration. Many have it not at all, others in a latent form; but where even the germ exists, it may, I believe, by the frequent and continued contemplation of such scenes as I have referred to above, and by the diligent study of the works of great masters, be cultivated so as to produce good fruit: the study, however, must be *diligent* and not mere chamber study,—for that I believe to be of but secondary importance,—but the most careful consideration of noble edifices, the associating with them until their spirit enters into us, until we can think in the same numbers in which they were conceived; and, measuring our conceptions by this new standard, we discover their poverty and meanness and aspire to better and nobler things.

In grouping a design, it should always be a primary object to determine what portion is to form the principal feature in the whole — to secure, in short, a key-note to which all other parts should be not only subservient, but should serve either as foils, or as degrees by which the attention is led to it. And the point to which the attention is thus directed should be invariably one of the most important parts of the whole—if possible that which marks its purpose. This principle, carried out in its fullest breadth, would place the chief building of a city in the chief place, as was really the case with the ancients. Witness the Acropolis at Athens, the Capitol at Rome—each surmounted by religious edifices, and each crowning a city of noble buildings of a uniform style. Mr. Ashpitel's very beautiful and clever restoration of the Forum of Rome will serve, to those who have examined it, for an excellent illustration of my meaning.

How admirably, how specially does our own St. Paul's seem adapted to fulfil a similar office. Imagine it the culminating point of a system of buildings, the groups artistically arranged, so as to form grand and impressive pictures, from whatever point of view. This, I fear, will now never be the case; but much may be done if architects, in designing buildings, will consider the effect they are likely to produce when grouped with existing neighbouring structures; if, in short, they would give a little time and thought to the site. I may here observe that great praise is due to the architects who have arranged modern Edinburgh—for the good use they have made of the accidental advantages of the site.

Again, in grouping buildings, or the parts of a single building, the architect should always bear in mind the *aspect* of the site; for shadows exercise great influence on the appearance of a building, either cutting up or consolidating it, as the case may be, and, in cunning hands, are weapons which may be turned to good account. Those accustomed to sketch from nature will at once recognize the truth of this.

Hitherto I have been applying the rule more particularly to groups of buildings, but it obtains equally in the arrangement of the parts of a single edifice. Some one portion should be fixed upon as the principal one, around and subservient to which the others should be arranged, as it were, in an order of merit, those which are of least importance being the most modest, and the last to arrest attention. Descending the scale, the same system should be carried out in the arrangement of the smaller parts or features of a building. Take, for instance, the entrance as being generally one of the most important of these minor parts: the eye, instead of having to pass from opening to opening in search of a door that is unmarked by any special features, after it has conveyed to the mind a general impression of the whole, and you begin to examine the building in detail, should of itself, and without effort, turn at once to the entrance which, distinctly, marked, invites, nay, insists, on recognition. To take St. Paul's again as an illustration. In the first place the dome, the unmistakeably principal feature, at once rivets our attention, which thence passes naturally to the belfries, or clock towers, subordinate to the last, yet sufficiently attractive, and answering the double purpose of aiding the general outline, and, by the contrast of their form, serving as foils to the great dome. Our eye is next caught by the pediment of the west front, and so carried down to the great portal. In many modern buildings, both in England and Scotland, I have been much struck by the total neglect of this important principle.

We are now arrived at the fourth and last subject of remark, "Detail," under which title I shall include both detail proper, or the enrichment of actual construction,—and what may be termed architectural accessories; that is to say,—those portions of ornamental detail, which, though strictly not forming a part of the actual construction, yet perform no mean office in harmonizing the whole; or, more concisely, that are æsthetically a part of the building, constructively no part thereof. This detail, though it is here placed last, is by no means the least deserving of attention; for chaste and appropriate detail will often make amends for grievous short-comings in other respects, and will ameliorate, on a closer inspection, the effect produced in our minds by the contemplation of an edifice wanting in breadth and nobility, or bad in arrangement and unartistic in grouping. On the other hand, however good may be the planning, however satisfactory the grouping, the impression left on our minds can scarcely fail to be one of disappointment and disgust, if on a nearer inspection we find the detail gross, vulgar, and ill-placed. This subject is one of the most serious of all the many perplexing ones which beset the young architect's path. None, perhaps, is a more frequent, or a more fruitful source of trouble and disappointment to him: the fact is,—having had but little actual experience, he does not yet know how to calculate the effect of mouldings, nor how different forms look on paper close to the eye, and when at a distance, raised in mid-air; or again, quite beneath the level of the eye. From want of this knowledge, he will be surprised and disappointed to find how far short his executed work comes of his expectation, and probably to see it issue from the workman's hands devoid of all the poetry and grace he fondly hoped he had given it; but let him not be cast down—though his disappointments be many—for this is a probation which all must pass through, and by persevering, and making good use of his failures, he will ultimately triumph.

No part of the detail of a building is beneath an architect's consideration,—rather, on the contrary, is it beneath him to repeat himself in every work he executes, as is not uncommonly the case; thus trumpeting to the world either his paucity of ideas or want of energy. How those old Greeks—true artists—put us to shame: witness only one of their art manufactures which has come down to us,—their painted vases, on which, though the same incident be repeated again and again, it is never represented in exactly the same manner. It has been truly remarked that "the repetition of mechanical copies was alien to the spirit of Greek art." *They* were far too earnest tamely to repeat, stroke for stroke, that which they had already done; but strove, in each new attempt, to improve upon the last, ever working with love, and ever dissatisfied with their work.

Let the young architect, then, throw his soul into his work, and most surely his work will bear its impress. Let us try if we cannot be more original even in common things: let us throw over our stereotyped patterns: let us design even our own door-knockers and scrapers. Ancient artists were not above these things. Here is a knocker in hammered iron, by John of Bologna. Compare his idea of a knocker with our wretched affairs, which, as a witty author of the day has observed, seem to frown or glare forbiddingly on all who approach. Can we not make the entrances of our houses a little more inviting? Are we all so poor that we cannot afford anything better than a plain square-framed moulded door? If we cannot do without cowls to our chimneys, is it impossible to beautify them, or, at least, to render them less hideous than the accepted forms? All this, young architects—aspiring volunteers, is part of the work set out for you. The task is great; but take courage: be ever on the watch: let no opportunity slip. You will meet with opposition; but what of that? Persevere! No great reform was ever yet accomplished without opposition; more generally with many a hard knock.

Gothic architecture has of late certainly made more progress than any other style, and we find in the works of the best modern Gothic architects the most praiseworthy attention to detail. Is not their success in a great measure owing to the care thus bestowed? The painter and sculptor enjoy advantages which the architect does not, inasmuch as they execute their designs themselves, and can thus give them the impress of their minds. This disadvantage under which the architect labours may be somewhat neutralized by a practical knowledge of modelling, and I would earnestly recommend all who have it in their power to acquire this.

The architect also should, whenever it is practicable, have models made *in the round* of all cornices or other moulded work, and try them in different parts where they will be employed. All sculptured enrichment should be executed (as it is by the French) after the block has been fixed in its place, and in the design of such enrichment particular attention must be paid to its position. The bronze gates of Ghiberti, at Florence, are in themselves a lesson on this subject.

In conclusion, let me say a few words on the subject of architectural accessories, which term includes all objects of architectural decoration and many articles of furniture; in short, all those various items which present so large a field for the display of taste and thought, and which an architect must regard as of inestimable value for a means of obtaining those sweet harmonies, those subtle combinations and contrasts, of form, scale, and colour, which are, as it were, the poetry of design. Until quite recently, these accessories, which, in the interior of a building, are of as much importance as the material of the fabric is externally, were left uncared for by the architect, to be supplied according to caprice or the interest of the tradesmen. The French were far before us in this, as their many valuable books on the subject prove, more especially I may notice those of Percier and Fontaine. The architect's position gives him peculiar opportunities to improve and cultivate the public taste in these matters; for where the settlement of them is not actually left to him, his opinion is often asked, and he has frequent opportunities of protesting against those gross abuses of all principle which our tradesmen constantly perpetrate, those traditions, replete with ignorance and bad taste, to which our manufacturers so blindly—so fondly—cling; and, on the other hand, to increase the demand for the really beautiful objects and materials which others, with more spirit and good taste, are engaged in introducing. Let us not neglect this privilege of our position.

W. L.

* See p. 249, *ante*.

YE ANATOMIE OF YE ENGINEERE.

THE *Indian Punch* has the following:—Although an arch man yet is he never forgetful of gravity; and though he damneth and blasteth more than any other man, he piqueth himself on being always correct in his terms: he is a dab at algebra, for which a Y Z is needful: he is a very Noah at describing arcs. Though he seeketh not after taverns he is conversant with sines, and payeth due attention to his cosines and sick Aunts. Even though not wealthy he helpeth to establish many a bank. He, ever kind and hospitable, supplieth chairs for sleepers, and though addicted to rail is never forgetful of the tender: he is a dutiful subject and though often in hot water, ever payeth fit attention to the Governor. He is somewhat of an ornithologist, knoweth all about cranes and crows, kites, tumblers and cocks for hengines, and moreover maketh wire ducks to aid his resonant steam eagles to fly. He is also somewhat of an Entomologist, understanding flies, crabs, worms and such likes, and not above taking notice even of a cows ticks. Though partial to hydraulics he is not otherwise a rollicking man, yet is at home in high dressed attics, where he often maketh use of new

mattocks in his area speculations. He is a peaceful man though well versed in triggernometry, and in the habit of making great use of switches in various ways. He is of levelling tendencies, yet sometimes wisheth he were monarch of all he surveyed. He is the most progressive of mortals, axing his way through forests and picking it through rocks, and, paradoxical as it may seem, he opens a country by putting locks on the rivers and keys on the banks. He is by no means a hater o' docks man, but well versed in dry dock trinal subjects, and would never desire to pull down the church unless it stood in the way of a railroad. He reverenceth the institutions of his country, because in them he recognizeth the mechanical powers. The Press he rightly regardeth as the lever; the ten-pound voters as the small end of the wedge; the House of Lords as the inclined plane, and the Commons as the screw: the Army he conceiveth to be both hammer and tongs combined, the Navy a series of pullies, and country justices in general pumps. His affection for the constitution is unbounded, for he only regards it in the light of the common wheel.

RACE STANDS.

The late unfortunate accident to the staircase at the Polytechnic Institution has naturally led to the consideration of the security of places of public resort generally. And as the season is at hand when the races throughout the country come off—periods of excitement when the erections set up for viewing the course are sorely tried — it behoves the parties owning them to see that they are carefully overhauled, with a view to their security being fully vouched for. As an example of this care and desire for the perfect security of the public, we are informed that the proprietor of the Grand Stand at Epsom has called in the professional aid of Mr. Eales, architect, to examine and certify thereon,—a course creditable to his forethought and care.

THE NINE-HOURS MOVEMENT.

IMPORTANT MEETING OF MASTER BUILDERS.*

An important and influential meeting of master builders was held on Wednesday last, at the Freemasons' Tavern, for the purpose of considering the reply to be given to the Conference of the building trades amalgamated for the purpose of limiting the hours of labour to nine hours per day.

Mr. George Smith, of Pimlico, having been called to the chair, opened the business of the meeting by observing that a letter had been addressed to the Builders' Society, on the part of the workmen, requesting to have what was called "the nine hours" conceded to them; that was, that they were to work nine hours, and be paid the same as before. The Builders' Society considered they were far too small a body to deal with a question involving not only their own trade, but many others; for it was useless to disguise that the question at issue was one which would affect, not only the building trade, but the general labour of the country. Under these circumstances, they thought it better to convene the present meeting, in order to obtain the general opinion of their fellow-tradesmen. This was the occasion on which they were met; and the difficulties of dealing with the question before them would be much diminished if those assembled would express their opinions on the subject. The letter of which the following is a copy was that which was addressed to the Builders' Society on the 19th of March last:—

"*To the Members of the Master Builders' Association.*

Gentlemen,—We, the Conference of the Building Trades, amalgamated for the purpose of attaining the nine hours per day, deem it expedient once more to communicate with you on the question at issue.

You doubtless are fully aware of the whole of our proceedings since we last addressed you, and these proceedings, we are convinced, cannot fail to have their due weight with yourselves.

Supported as our claim is by the public press, acknowledged favourably by the Association of Architects, advocated from the pulpit, and our own energetic and persevering efforts, cannot fail to call forth your entire approval.

Your 'resolutions' submitted to us do not express anything definite, but to enter into debate on this question, by letter, would be next to impossible, and it is not our intention.

This much we may be allowed to say, that we consider this movement has been agitated long enough to entitle us to claim either your sanction or rejection.

And not doubting that it has been discussed in your Association, we respectfully request an answer from your meeting in April next, whether you will concede the 'nine hours' as a day's work—'Yes' or 'No.'

I have the honour to be, on behalf of the Congress, yours most respectfully,

(Signed) George Potter, Secretary,
"19th March, 1859." 96, Denbigh-street, S.W.

The resolutions referred to in the above letter were agreed to on the 26th of August last, and declared that the question, although originally raised by the carpenters and joiners, was really a question involving all trades; and that, as there was no law to compel workmen to labour for any given number of hours, the question amounted to an alteration in the rate of wages, which no circumstances of the present times appeared to warrant. There appeared to be some feeling on the part of the workmen, on account of their deputation not having been received, but the reason was this. The carpenters and joiners first requested a meeting, and they attended in considerable numbers, and stated, the masters believed, all the reasons which could be advocated in favour of such a movement. It seemed that subsequently a union, or amalgamation of all the various trades, was brought about; and they also requested a deputation, which was not acceded to, as it was felt that they could only go over the same ground again; but not intending any discourtesy, or want of feeling, towards the men. Having thus stated what had been done, he hoped the meeting would not separate without passing some opinion upon the important subject submitted for their consideration.

Mr. Charles Lucas proposed the first resolution, as follows:—

"That in the opinion of this meeting it is not expedient to accede to the request of the letter dated 19th March, because the present arrangement of hours is the most convenient to all parties and does not involve such an amount of time as to bring the building-workmen at all within the limit of those on whose behalf the public interest has been excited and its benevolence aroused;—the hours now being from six o'clock in the morning to half-past five in the afternoon, with one hour and a half interval for meals. Much inconvenience would result from the discontinuance of work at so early an hour as half-past four, involving as it would the stoppage of all machinery, plant, cattle, &c."

In his opinion, the claims put forward by the Conference were unreasonable, and if acceded to would entail a prodigious loss upon the public.

Mr. George Myers seconded the resolution, which was put from the chair, and carried as the unanimous feeling of the meeting.

Mr. Dunnage (of the firm of W. Cubitt and Co.), proposed the second resolution, which was in the following words:—

"That if the builders were to admit the principle sought by the workmen, they would take upon themselves the responsibility of taxing the public more than ten per cent., and establish a regulation which must necessarily govern labour and its value with all other trades throughout the kingdom. That, acting upon this impression, this meeting records its opinion, that there is no sufficient reason at this present time to justify such an advance as is demanded by what is called the 'nine-hours movement.' During the past year the desire of the master-builders to meet every reasonable demand has been evinced by the fact that they have given up, without reduction of wages, one hour and a half on each Saturday afternoon; and, so lately as the year 1853, they agreed to an advance of ten per cent. on the wages then paid, by reason of which the skilled workmen, on an average, now receive 33s. for 58½ hours' labour. That, for these reasons among others, it is the opinion of this meeting, that the request for nine hours to be paid for as ten hours, ought not to be acceded to."

Mr. Kelk seconded the motion.

After a short conversation, in which it was stated that skilled workmen, in connection with the building trade were now able to earn 5s. 6d. per day, or 33s. per week, the Chairman put the resolution, which was carried unanimously.

The Chairman having expressed a hope that the meeting would not separate without eliciting some remarks from the gentlemen who had attended,—

Mr. Turner said he had been induced to attend this meeting of his fellow-tradesmen, because he considered the question at issue to be to them one of the most important and momentous which had ever been raised in his lifetime. The question of wages was one which affected the employer as well as the employed. They lived in an age of severe competition, and how, he asked, could they compete successfully if there was not something like uniformity of wages among the building interest. He happened to know, however, that uniformity was not the rule, as there were certain large firms which did not pay 5s. 6d. a day to their workmen. There were gentlemen present from some of the largest firms in the metropolis, who could refute what he said if it were not true, and who could assert that they paid 5s. 6d. a day to all hands. For his own part, he thought it most unjust to pay 5s. 6d. per day without reference to the ability of the men. He had men in his employment who were not worth 5s. 6d. a day, and why should he be compelled to pay that sum to men who could not earn it? He had no objection to pay it to honest industry and perseverance, as the extra 6d. per day should be an incentive to labour; but he objected to place the bad workman on the same level as the good. He was glad to see the trade united on this question, for he had long felt that they looked upon each other too much as competitors and antagonists; and that they ought to be bound together by a band of wire, and not by a rope of sand. The fact was, they competed too much with each other, and as a body they contained no common elements of cohesion. This should not be; and he assured such men as Mr. Lee, Mr. Lucas, and Mr. Myers, that if they and similar men would combine for an object like the present, hundreds of the small employers would gather round them. Whatever men like Mr. Myers or Mr. Lee did would rule the trade; and, if they would set the trade an example, they might depend upon the co-operation of the general body of employers. The interest of the working man and the master was one, and identical; and the sooner the vexed question was settled, the better would it be for the men, the masters, and the public.

A Gentleman suggested whether, as considerable misapprehension existed on this subject, it might not be desirable that means should be taken to exhibit to the public the true position of the question at issue. The workmen put forward a statement that "their claims had been advocated from the pulpit." Now he ventured to say that this was not the fact; as, whatever interest might naturally be felt by the clergy for the over-worked shirt-makers and poor sempstresses, their cases were by no means analogous to that of skilled workmen earning 33s per week. He should be glad to see a resolution passed giving the committee power to advertise the resolutions agreed to that day as generally as possible.

Mr. Abbot said he would have great pleasure in seconding the proposition just made, as he considered it very desirable that the public should not be misinformed on this subject. With regard to the Church advocating a question of this nature, a friend of his had told him that the Rev. Mr. Cadman, of St. George's in the East, had been requested to advocate the cause of what was called "the nine-hours movement," and he had declined to do so because he considered the claims of the workmen unreasonable and impracticable.

Mr. Lucas said he doubted whether in any other business the hours of labour terminated at half-past five o'clock.

Mr. Abbot said he hoped the resolutions agreed to that day would be advertised in the *Builder*, where the trade could see them.

Mr. Piper.—Of course: that is our *Times*.

A resolution was then agreed to authorizing the advertising of the resolutions.

On the motion of Mr. Todd, a resolution was also passed directing that the resolutions agreed to at that meeting be communicated to the Conference of the building trades workmen.

A Gentleman inquired what course it might be desirable to take in case the men refused to accept the resolutions of the meeting, and "struck."

The Chairman said he thought it would be more advisable not to discuss such an alternative until it arose.

Mr. Morris expressed his opinion, that union among the masters was most desirable in case of any exigency, such as that referred to.

Mr. Lee deprecated any discussion upon the subject as premature. They had met that day to give an answer to the men, and he did not think it desirable that they should arrive at any hasty determination as to what should be done in the future. If any strike should take place it would then be time enough to hold another meeting, and consult as to what should be done. He hoped also that nothing might occur to interrupt the good feeling between masters and workmen.

Mr. Morris explained, that he did not wish to be understood as giving any other counsel. He would treat the men with every consideration and courtesy.

Mr. Arding said that he felt personally obliged to the Builders' Society, for having called the meeting, and he was assured that the good feeling and sound sense of the employers would induce them to call another meeting if necessary. He thought they had all reason to be grateful to the chairman, and he begged to move a vote of thanks to him.

The vote having been unanimously accorded,

The chairman acknowledged the compliment, and the proceedings terminated.

* The following builders were present:—Messrs. Dunnage (W. Cubitt and Co.), Kelk, Lucas, Lee, H. Lee, jun. Myers, T. Piper, Mansfield, Aid. Lawrence, W. Piper, C. Lucas, J. Rigby, Piucknett, Soward, G. Bird, Rider, Stephens, J. Bird, E. Bird, Watts, Todd, Browne, Homer, Ashby, Abbott, Arding, Turner, Oxford, Higgs, Read, Patrick, Patman, Outhwaite, Morris, Adamson, Aris, Trollope, Hocken, Dove, Birkett, Bywater, Gray, Wood, Coles, Henshaw, Coleman, Turner, Heeps, Pickering, Waller, Harrison, Barton, and about twenty others.

COST OF CEILING-PAINTING.

SIR PETER PAUL RUBENS received for his painting of the grand *Plafond*, at the Banqueting House, Whitehall, the sum of 4,000*l*. The space covered by this painting is about 400 yards, so that he was paid nearly 10*l*. a yard. Sir James Thornhill, the first Englishman who received knighthood for his ability in art, was paid only 3*l*. a yard for the laborious work on the ceiling of Greenwich Hospital, and only 1*l*. a yard for painting the ornaments on the walls. This employment he was appointed to in the reign of Queen Anne; but the work was not completed until the reign of King George I. He commenced in 1708, and finished in 1727, and was paid altogether 6,685*l*.

The valuation of the work, after many attempts to screw down the painter, was made by the directors of the hospital, after consulting the following artists then residing in London,—Vandervelt, Cooper, Richardson, Sykes, and Degard, —who decided in favour of Sir James, and reported that the performance was equal to anything of the kind in England, and superior in the numbers of figures and ornaments.

"The Duke of Montague," says Sir James Thornhill, in his memorial to the commissioners for building the hospital, "paid Monsieur Rosso, for his saloon, 2,000*l*. and kept an extraordinary table for him, his friends, and servants, for two years, while the work was doing, at an expense estimated at 500*l*. per annum."

Signor Verrio was paid for the whole palaces of Windsor and Hampton Court ceilings, sides, and back stairs at 8*s*. a foot, which is 3*l*. 12*s*. a yard, exclusive of gilding, had wine daily allowed to him, lodgings in the palaces, and, when his eyesight failed him, a pension of 200*l*. per annum, and an allowance of wine for life.

Signor Rizi had of the Duke of Bedford 1,000*l*. for painting three rooms; for the little chapel at Bulstrode, 600*l*.; from Lord Burlington, for his staircase, 700*l*.; Signor Pellegrini, of the Duke of Portland, for work in his house, 800*l*. and for a small picture over a chimney-piece, 50*l*.; of the Earl of Burlington, for the sides of his hall, 200*l*.

Other instances might be given to show the large amount of employment this now comparatively unused description of house-decoration afforded to artists of ability.

CHURCH-BUILDING NEWS.

Hereford.—The works at Maiden church, in the county of Hereford, delayed for a few months in consequence of the dangerous accident that occurred to the builder and his foreman, are now recommenced and will be proceeded with, with the despatch requisite to ensure completion towards the early part of next autumn. The body of the old church had become much dilapidated, the walls being, on an average, 12 inches out of the perpendicular, while the west walls toppled over as much as 2 feet 6 inches. The roof had also become dangerously rotten. There was therefore no alternative but to take down and entirely rebuild the nave, aisles, and porches. The tower, steeple, and chancel will remain, and the new nave and aisles will occupy the old site, and the pillars, arches, and every other object of interest will be carefully preserved, restored, and brought into the design of the new structure. The works are being carried out by Mr. Noden, of Leominster, from the designs and under the superintendence of Mr. Nicholson, of Hereford, the diocesan architect.

Bemerton. — The foundation of a memorial church to George Herbert, has been laid in the parish of Bemerton. The site is a little beyond the present church, on the road to Wilton. It is to be in the Decorated style of architecture, and will consist of a nave, north and south aisles, and a chancel, on the north side of which will be a tower, surmounted by a bell-turret. The length of the building will be 104 feet, and its width about 53 feet; and it will afford accommodation for 355 persons. Mr. Wyatt, of London, is the architect; Mr. Miles, of Shaftesbury, the builder; and Mr. Howitt, of Wilton, the clerk of the works.

Worcester.—At a meeting of the subscribers to the fund for erecting an ornamental stained-glass window in the eastern end of Worcester Cathedral, the honorary secretary intimated that the amount at present actually subscribed or promised was about 600*l*. and suggested the desirability of taking the necessary steps for securing designs from the best artists for the window; subsequently commencing the filling in of the first or higher portion of it, until such time as the state of the funds would allow of the completion. The entire cost of the window will be something like 1,050*l*. A resolution was adopted to the effect that the work of filling in the window with stained glass should, with the concurrence of the dean and chapter, be at once commenced; and advertisements were ordered to be inserted in various newspapers, inviting artists to send in designs by the 1st July next.

Ely.—The dean and chapter of Ely have determined upon the restoration of the central octagon and lantern of the cathedral, as a memorial of the late Dean Peacock. According to the estimate of Mr. Scott, the expense will be 5,000*l*. for which a subscription has been opened.

Manchester.—The removal of the loftiest and most conspicuous church-spire in Manchester, that of St. Mary's, the Parade, says the local *Courier*, has naturally excited much notice. Representations of its unsafe state were made to the dean and chapter by the corporation of Manchester, and the ecclesiastical authorities at once took steps to render the sacred edifice secure. The work of demolition was entrusted to Mr. J. W. Graham, stonemason. It is intended to take down the spire to the base of the columns, and not rebuild it at present. The spire was originally 186 feet high. The plan of constructing the tower and spire was very unsound. The iron bands in the steeple had corroded with the wet, expanded, and split the stone. The balance-weight of the 20 feet vane corroded and fell many months ago. The removal of the heavy stonework has been effected safely.

Richmond (*Yorkshire*).—Part of a fund, collected towards the restoration of Trinity Church, Richmond, has been expended in replacing the ill-formed windows of the nave by others more in harmony with the new east window, the chief feature of the present improvements. This was furnished from Messrs. Hodgson, of York. Mr. Barnett was the artist employed by them. The window contains three figures—the central that of the Saviour. To the right is St. Paul, with sword and book; and to the left St. Peter, with keys. Above the chief lights, and filling the remainder of the window, are the figures of two angels, bearing scrolls. The unsightly chancel arch has also been removed, and has been replaced by a dressed stone arch, harmonizing with the character of the new windows and the rest of the church.

Durham.—The Dean and Chapter of Durham propose to restore the central tower of the cathedral. It is intended to recase the whole of the tower, down to what is termed the "bell-ringers' walk," and the buttresses are to be restored for 20 feet lower. The architecture will, in all essential particulars, be the same as at present, but the workmanship will be very different, as stone work is to be substituted for the cement in which the tower is now enclosed. The work will be commenced as soon as possible, and will occupy nearly two years.

Butterwick-in-Ryedale.—A new chapel-of-ease to the church of St. Michael, at Barton-le-Street, just completed at Butterwick, has been opened for Divine service. The edifice is situate on the south bank of the Rye, immediately adjoining the village and the bridge which carries the Kirby-moorside-road across the river. The architects are Messrs. Tuke and Metcalf, of Bishop Auckland, and the erection of the edifice has been carried out by Mr. John C. Teale, of Malton. The building is in the Early English style. The exterior presents a porch, nave, and turret. The nave contains nine pointed lights, three on the north, three on the south, one east window, and two in the west end. The nave is slated, and the east gable is surmounted by a universal cross, of moor stone. The west gable has a bell-turret, flanked at all the angles, with buttresses rising from corbels. The whole of the windows are glazed in alternate squares of green and white. The bulk of the building is of Appleton stone, but the arches are of Kildenley. The sculptured bosses of the doors and windows have been executed by Mr. James Teale, of Malton. The chapel is stalled to seat about 100 persons, and the woodwork, of deal, is stained oak and varnished. The edifice is warmed by an ornamental stove, with a descending flue. The flue is of open woodwork, stained oak, having three centres springing from corbels, the apices of which are trefoliated. The chapel has been erected at a cost of from 300*l*. to 400*l*. including the purchase of the site and the expense of conveying it to the Ecclesiastical Commissioners.

Carlisle.—A temporary church, in West Tower-street, has been opened for divine service. The structure is of wood, and is situated on the south side of West Tower-street, the site being given free, so long as it should be required, by Joseph Ferguson, esq. of Morton. The building is calculated to seat about 400 persons. Its length is 53 feet, and width 37 feet, and it is entered by a porch, having doors on the right and left. The seats are of plain deal, with inclined backs. It is lighted at each end by large windows, one above the altar and pulpit, and the other above the entrance. Gas has been introduced. The floor is of asphaltum, and the roof is slated and plastered. It was erected by Messrs. Cameron and Briggs, joiners, and Mr. John Hodgson was the architect. The total cost will not exceed 180*l*. towards which sum 143*l*. have already been subscribed. The scheme originated with the bishop.

Millom.—Some workmen at the Millom parish church, says the *Ulverston Advertiser*, removed the roughcast and rubble within the pane-work of the remarkable vesica or fish-shaped window at the west end of the aisle, with the view of ascertaining whether any indications of the original tracery of the window could be found. The original tracery, almost perfect in form, was brought to light from the mass of rubbish under which it has probably lain hid for upwards of a century. It proves to be a specimen of the Decorated order of architecture. Drawings were taken, as the old tracery, though almost perfect in form, is in parts crumbling and liable to fall in pieces. The incumbent has decided to restore this window.

Ormskirk.—A number of the Ormskirk parish church windows are to be restored, at the expense of several persons, as memorials or contributions. The new east window is to be from a design by Mr. Paley, of Lancaster, architect, and executed by Messrs. Forrest and Co. of Liverpool. The subject is to be the Ascension of Christ. Mr. J. P. Heywood, of Liverpool, provides this window. Another contributed by Mrs. Webb, of Brooklands, has just been put up in the north side of the church. Faith, Hope, and Love are the subjects, and Messrs. Forrest and Co. of Liverpool are the artists.

Edinburgh.—The Reformed Presbyterian Church people at Lady Lawson's Wynd are about to erect a new edifice at George IV. Bridge, nearly opposite the Rev. Dr. Alexander's new church. The plans have been selected from a number of competitive designs, and are by Mr. Leadbetter, architect.

ARCHITECTURAL INSTITUTE OF SCOTLAND.

AT the meeting held on Tuesday, April 19th, the report of the council upon the drawings sent in competition for the prizes offered by the Institute was read, and the medals were delivered to the successful competitors, viz.:—

I.—For a Perspective Line Drawing.
Medal.
Francis D. G. Stanley, apprentice to Messrs. Brown and Wardrop, architects, Edinburgh.

II.—For a series of Drawings of Architectural Details, measured and drawn from the originals.
Medal.
John Alexander Hamilton, apprentice to David Rhind, esq. architect, Edinburgh.

III.—For the best Original Design,—subject, a Screen.
Medal.
James Lessels, asprentice to John Lessels, esq. architect, Edinburgh.

Meriting Honourable Mention.
1st.—G. A. Aitken, apprentice to Messrs. Peddie and Kinnear, architects, Edinburgh.
2nd.—James Shepherd, apprentice to Wm. Smith, esq. architect, Aberdeen.

DESIGNS FOR THE MANCHESTER ASSIZE COURTS.

THE designs for the Manchester Assize Courts, including the three selected for the premiums of 250*l*. 150*l*. and 100*l*. respectively, are displayed at the Royal Manchester Institution, where they have been inspected during the week by the county magistrates. The designs are very various in style of architecture. The first prize has been given to Mr. Waterhouse, of Manchester; the second to Mr. T. Allom; and the third to Mr. John Robinson. The designs were to be on view to the public on and after Wednesday, until Saturday, the 23rd instant.

The designs were first reduced to seven, and the Committee called to their assistance Mr. David Bellhouse, to "ascertain how far their contributors had complied with the instructions issued; and particularly with that portion of them which limits the total cost of all the erections required, including fixtures, fittings, the boundary fences, heating and lighting apparatus, draining, and all matters necessary for carrying out the proposed works, to the sum of 70,000*l*."

The selected design (by Mr. Waterhouse) is Gothic in style. The courts, &c. comprised in the

principal building form on plan a rectangle, 250 feet by 150 feet, except where Scott-street runs into it on the north-east (Cotham-street) side, and where the principal entrance projects beyond the façade. Taking the central line of Great Ducie-street, the façade will stand back more than 100 feet, a fine open space being thus left. The height from base to parapet will be nearly 60 feet, and through and above the open tracery of the parapet will be seen the steeply-pitched roofs, there being pavilions over the principal entrance and at the angles, rising to a considerable altitude. An illuminated clock turret will crown the chief entrance, and behind will rise a central tower 200 feet high, with gabled sides and slated spire, serving as a ventilating shaft. The windows of the basement story will be coupled; those of the principal story, of three lights with traceried heads; and those of the upper floor more deeply recessed, with detached marble shafts between each group. The central porch will have open arches, with canopied statues above, and there is an octagonal staircase turret on the Southhall-street side. Though the building will be faced with stone, it is considered by the architect that grey and red granite in small quantities (as in columns and elsewhere) might be effectively introduced. At the Great Ducie-street and Cotham-street angle of the plot will be the Judges' lodgings, communicating with the Courts by means of a corridor at the back of a court-yard, forming the carriage entrance to the lodgings; and the entire frontage to Great Ducie-street will be 350 feet long.

The entrance for the public will be by three easy flights of steps, leading through an open vestibule, 40 feet by 25 feet, into a central-hall, 100 feet by 50 feet and 70 feet high, having an ornamental timber-framed roof. This hall will give ready access to all parts of the building by various corridors and staircases.

The two principal Courts will be at the north and east angles of the central hall. They will each be 66 feet by 40 feet and 40 feet high; the ceilings being flat in the centre, with inclined ends and sides. The Judges' retiring-rooms will be placed back to back, with a connecting corridor. The Sheriff's Court, 40 feet by 25 feet will be immediately contiguous to the Crown Court; and the Grand Jury Room and the Palatine Chancery Court will be in the upper story.

COMPETITIONS.

Blackburn Workhouse.—The ratepayers of Blackburn are about to erect a new union workhouse, at a cost of 14,000*l.* to accommodate 700 inmates. The Board of Guardians offered a premium of 50*l.* for the best-approved plans, &c. and issued printed invitations to architects to compete for the same, and designs were sent in from ten parties. The guardians have placed the whole of them in the board-room for public inspection.

Royal Medical Benevolent College, Epsom.—The Council have elected Mr. George Elkington, of Cannon-street West, architect to the College, having received twenty-two applications for the appointment, in reply to the recent advertisement in the *Builder*.

THE RESTORATION OF HEREFORD CATHEDRAL.

SIR,—Excuse my saying that, after the accidentally erroneous statements made on the faith of, I have no doubt, a very well intending correspondent, as to the restorations of this cathedral, I think your corrections of them are scarcely sufficiently clear to prevent misapprehension.* In your first article you say that "Hereford Cathedral *is undergoing* a process, not of restoration, but of renovation, with a vengeance." This seems founded on what follows, that "a portion is said to be restored, and a greater contrast between the past and the present cannot well be imagined." Now, it is pretty clear that this statement cannot refer to any part of the work recently undertaken, but to the restorations effected under the late Mr. Cottingham, and commenced in 1841, yet the wording would connect it distinctly with what is now doing. The same may be said of your remarks on the ceiling, and the floor of the nave, which were executed in the years 1849-50, under Mr. Cottingham, jun. The removal of the monumental slabs and effigies took place, so far as I have heard, at the very commencement of Mr. Cottingham's operations: all *I* have to do with them is to replace them; yet your correspondent says he saw them being removed from the floor, about six weeks ago! I can only say that, on my appointment, in 1854, I found, to my great disgust, that they had for the most part been stacked up in the Chapter-house yard, or stowed away in the eastern chapels; and my clerk of the works says of them, "I have removed no brasses or slabs, excepting to put them to a place of security, for they were thrown about very recklessly when I came here. I took the same precaution with the effigies, at a very great expense to the contractor." You will see from the above, that *all* the statements made respecting the actual works, though so made as to seem as if aimed at the works commenced last year, relate, in fact, to those commenced in 1841, and discontinued about seven years since.

The remaining charge, however, does relate to what is now doing; and I can truly say, that if it is in any degree correct, no one would be more annoyed at it than myself. In the form in which it first appeared, I can give it a very distinct denial. It is there distinctly stated, that the remains of the bishops, whose effigies were removed by Mr. Cottingham, and are now to be restored (not in the sense usually understood by "restoration," but) *to their places*, "have been cast to the dogs and the manure-heap, drawn forth without the city, and reburied with the burial of an ass!" This is of course only a rhetorical flourish; but so far is it from being true, even in the most mitigated sense, that I believe no kind of disturbance to internal burials has taken place since the work has recommenced. There might have been such disturbance when the internal piers were restored some fifteen years back; but of this I know nothing. All I say is that nothing of the kind has taken place now; so that the flourish in question, after all due reduction to bring it down to sober matter of fact, contains a grossly unjust accusation. I have inquired very carefully into the remainder of the statement, and have received the written depositions of several of the workmen employed. I do not know the case of my own proper knowledge, but from all the information I can obtain it is as follows.

The foundations of all the eastern part of the cathedral had to be underpinned to a considerable depth; in one place so deep as 17 feet. In opening the ground for this it was, as has been the case in churchyards since the days of Shakspeare, found to contain bones, not skeletons, but bones which had been removed before, and in some places deposited in holes as if collected while digging new graves, and placed together. These, when it became necessary to the works to remove them, were deposited in an extensive excavation which had been made some years back by Mr. Cottingham, on the site of the ancient chapter-house, and in another excavation; and, as I am assured, carefully buried. Any one who has had to do with ancient churchyards knows well what numbers of bones have to be thus removed when any work has to be carried on. "Bonehouses" have from time immemorial been erected for such purposes; but in this case the two excavations in question seem to have been deemed proper places to deposit them. There has been some earth removed from the chapter-house yard; but I am told that the utmost pains have been taken to ensure the absence of every fragment of bone from it. The clerk of the works says, "no bones have ever laid exposed longer than necessary, and were they from my dearest relative I could not have respected them more." The depositions of the workmen all assert that all possible care was taken, and that the bones removed were all such as had been removed before.

I cannot say more of it than that I think the gentleman who attributed to the work commenced last year the faults of that commenced in 1841, and discontinued seven or eight years back,* may have fallen into other errors; and that I hope and believe he has done so.

April 18. GEORGE GILBERT SCOTT.

*** We have also received a letter from Mr. W. H. Lowder, Hon. Sec. of the Oxford Architectural Society, but are unable to find space for it. Mr. Lowder says,—"The pit which evokes the Latin quotation from your correspondent is, I grant, a melancholy spectacle, and its history is still more so; but its history is a thing of the past, and nothing to do with the present question. It is quite true that there are bones in it, but these bones do not come from the interior of the cathedral, but from the necessary excavations for the underpinning of the walls, which were ruinous."

* The remarks in question referred to the general restoration of the cathedral, viewed as a continuous work, without any reference to time, and are confirmed in every respect.

* He really did nothing of the kind.

PROVINCIAL NEWS.

Colchester.—Two new hospital wards, with offices attached, are being added to the Borough Union Workhouse, by Messrs. Orrin and Elsdon, under the direction of Mr. H. W. Hayward, of this town.——Touching the appearance of insects in St. Peter's Church, Colchester, the architect denies that the furnace is placed in a vault formerly used for burials, and says the cause of the visitation is now being investigated.

Blyth.—In reply to the advertisement to architects for designs for the national schools at Blyth, says the *Gateshead Observer*, eight sets of plans were sent in to the committee, who decided upon adopting those prepared by Mr. Dunn, of Newcastle, under whose superintendence the new buildings will be commenced immediately. They are to consist of schools to accommodate 150 boys and girls, with two class-rooms, and a residence for a master and mistress attached, all of stone. The site is in the parish of Horton (a portion being reserved for a new church).

Newcastle-under-Lyne.—The committee to whom the preliminary arrangements were entrusted have received a large number of plans in answer to their advertisement offering a premium of 20*l.* for the design which the council might most approve. The following are the names of the architects who have supplied them, besides which there are seven designated by mottoes:—Messrs. Ward and Son, Hanley; Messrs. Ford and Meyer, Burslem; Mr. R. Chapman, Newcastle; Mr. Robert Edgar, Stoke-on-Trent; Mr. Ralph Dain, Burslem; Mr. Robert Scrivener, Hanley; Mr. James Stevens, Manchester and Macclesfield; Mr. James Murray, London; Messrs. Mason and Layland, Liverpool; Messrs. Holme and Stubbs, Liverpool; Mr. W. Hall, Birmingham; Mr. T. H. Hutchinson, Birkenhead; Mr. Robert Down, Bridgwater; and Mr. J. M. Johnson, Lichfield. The plans are open for inspection.

Jersey.—The massive breakwater along the Esplanade, says the *Jersey Times*, is regularly advancing: upwards of 240 feet of solid work, 24 feet high from the sea-line, is completed, with solid granite blocks, on a prepared bed of rough stonework. The works are facilitated by a double railway and traversing platform, the contrivance of the contractor. The promenade and roadway will, by this improvement, be widened 24 feet, and the sea entirely prevented from breaking over the road.

SPURGEONIA.—COMPETITIONIA.

IN a large room, with galleries deck'd,
The Spurgeon designs were ranged.
Two designs by designers were voted,
The first and the third being named.
But another design the church select,
For it the first was changed.
The true worth of the first, 50*l.* denoted;
The third with it was ranged;
And the other—the chosen of Spurgeon and deacons—
Declared "the best basis" for readings and teachings.

But to turn from this tale, which every one knows,
To another much like it, as far as *that* goes.

Musingly sitting, behold! the flower of artistical critics;
Smoking so gently his pure weed: gently recalling "the Spurgeons:"
Travels his mind through Rae's premise; premise well covered with drawings:
Suddenly fixes on Pocock's—plan, elevation, and section.
Peeps into every crevice—dreams of the deeds of the ancients:
Things never noticed by any, save those who have also created:
Fortified thus as to defects, rushes to pen and to paper;
Finds the ink smoothly to flow; finds the pen move like a "chisel."
Mason like in his fine touches, cleaveth "poor Pocock" asunder:
Rendeth his building in toto; wanting much light where none's needed.
Upriseth Pocock in anger: sneering (not seeming to do so)—
Sneers by the "I-will-not" dodge; but cutteth his foe into pieces.
Points his facts fierce and concise, but errs when he falls into by-play—
Understands not the full depth; depth of the fulness of language:
Proves his design well arranged, but cannot prove good his four turrets—
Turrets that seem as if misplaced; placed at the top for the bottom:
Verily they must be piling; driven to hold the foundation—
Erected with sundry device upon the four tops where they're bases.
Fruitful "usque ad nauseam" Garbett finds out the discussion:
Pocock has smitten him home: he cannot re-enter the medley.
Stay, O Muse, so presumptive; Garbett has re-blown his trumpet;
Skirmishing "outlay pay"—seeming t'encounter with Pocock;
Ruskinish sentences rise, gleaming as brass in the sunlight:
Evident copies of "get up," known in our greatest "lamplighter:"
His the rich golden metal; metal despised in its copy.
Having skirmish'd with "outlay pay," he quietly smokes a cigar out:
But Pocock as first is the victor—his payment ne'er soiling his logic.

METROPOLITAN BOARD OF WORKS.

THE BILLS OF QUANTITIES.

AT a meeting of the Board, held on the 13th inst. Mr. Leslie objected to the payment, either directly or indirectly, to Messrs. Roberts and Gotto, of any money out of the rates, for the taking out of the quantities for the contract for those works. In doing so he took occasion to animadvert on the manner in which these gentlemen had performed their duties. He then went into minute details to show that there were errors in the quantities taken out, which operated to the prejudice of the ratepayers to the extent of 7,246*l.*

The President said that the matter was full of importance, and he saw no reason why the errors which had been made in taking out the quantities should not be rectified. The public were not injured, as stated, as Mr. Moxon, the contractor, had taken out the quantities for himself. (?)

The Board ultimately adopted the recommendation of the committee as to the payment of the instalment, with a request that the payment of Messrs. Roberts and Gotto should be postponed until the report of the committee of the whole Board upon an investigation of the matter should be brought up.

This matter must be cleared up: it cannot rest where it is.

COVENT-GARDEN APPROACH.

The superintending architect reported in detail all the purchases of property agreed for up to the 25th ult. for the Covent-garden approach, together with an account of the sums claimed, and the amounts agreed upon to be paid for the respective premises, and the manner in which the claims were settled; and that the claims on freehold and leasehold interests, for goodwill, loss on removal, &c. which amounted to 117,093*l.* 5s. 1d. have been settled at the sum of 80,178*l.* 14s. 8d.

ELY SURVEYORSHIP.—Mr. Baldwin Latham, C.E. of Nantwich, has been appointed surveyor to the city of Ely.

Books Received.

VARIORUM.

HALF-A-DOZEN monthly threepenny parts out of twenty-four have been issued of "Beeton's Dictionary of Universal Information" (Beeton, Bouverie-street, E.C.), which is certainly a wonder in its way, as regards special advantages to the subscribers and others. The work in itself bids fair to be of considerable value, so far as an actual "Encyclopædia" for six shillings can be said to comprise "universal information." It is printed in a close but clear economical type, and is evidently an intelligent abridgment of information gleaned from more extensive works, although we miss not a few items of "universal information" which ought at least to be briefly indicated even in such a work as this; for example, a few words under Assyria and Babylonia, to indicate recent excavations; under Andaman Islands, to indicate that in the late military tornado in India these were made a place of exile for the rebels; under "Alexandrina," to intimate that our beloved sovereign's actual name is "Alexandrina Victoria," &c,—a fact which the more glorious suggestions of her popular name appear to have almost obliterated from the public memory, as well as from this popular Encyclopædia. But, really, considering every thing, there is exceedingly little to complain of in these serial parts. The special advantages to which we alluded consist of "a chance of obtaining a prize of from ten to two hundred guineas, in a handsome gold watch or a beautiful work of art" to all purchasers, the chances referring to the London Art-Union ballot, with which the publishers have connected the work. Even those who obtain a certain number of subscribers are repaid in "prizes of gold watches," &c. This is a somewhat new feature in the book trade. That it must push the sale of any work cannot be doubted; but it is to be hoped that the actual merits of the publication itself will be always kept mainly in view, as we dare say it has been in the present instance.

Miscellanea.

NATIONAL PORTRAIT GALLERY.—We have been requested to state that the National Portrait Gallery, 29, Great George-street, Westminster, will be open to the public (by tickets) on Easter Monday, Tuesday, and Wednesday, from ten to five o'clock. Tickets, procurable as usual from Messrs. Colnaghi, Messrs. Graves, and Mr. J. Smith, of New Bond-street, may be had also, on application, of Mr. Metchim, stationer, 20, Parliament-street; and of W. Dufour, stationer, 17A, Great George-street, Westminster.

MUSEUM OF THE DEPARTMENT OF ART.—The prize drawings of the Metropolitan District Schools of Art are to be exhibited during the Easter holidays at the Brompton Museum, in the rooms provisionally prepared for the reception of the Vernon and Turner pictures, already described in our pages. This will give the public an opportunity of seeing them at once.

THE STREET FOUNTAIN MOVEMENT.—A drinking fountain is to be erected on Chatham Lines, near Sallyport.——The Brighton Council have had designs for fountains submitted to them, from which one is to be selected and fountains ordered. Arrangements are being made for the erection of one at the bottom of West-street and another at the Old Steine.——A fountain is about to be erected in Southampton.——The Coventry Board of Health have agreed to the proposal of the Coventry United Temperance Society to erect a fountain and contribute 5*l.* for a year's water-supply. A vacant space near St. John's Church has been selected for the purpose.——The movement is progressing at Scarborough. A fund of 100*l.* has been collected, and ten sites selected by the Local Commissioners of Improvements, and several private individuals also propose to erect fountains at their own cost.——The erection of the drinking fountains provided by the Sunderland Corporation is now proceeding. Fountains have been erected at the entrance to Bishopwearmouth Church, in the High-street; adjoining Alderman Hartley's works, Hylton-road; and at the Ferry-boat landing. A fountain is also to be placed in the wall adjoining the Park from Old Building Hill-lane.——A polished Aberdeen granite drinking fountain has been erected at Oldham, at the cost of the King-street and Werneth Co-operative Society: the site is in the Market-place.——The movement seems to have extended to the antipodes. Forty water-fountains for the public streets of Sydney had been cast, and were about to be erected, when the last mail left.

WATER-PIPES IN INDIA.—The *Bombay Standard* states that the pipes of the Vehar waterworks are bursting at a pressure of 70 or 80 feet of water. They were purchased to bear a pressure of 400 feet, and cost upwards of 300,000*l.* They were ordered by the East-India Company, not by the contractors for the waterworks.

ST. MELLON'S CHURCH, MONMOUTHSHIRE.—Mr. E. A. Freeman has addressed some comments to the *Guardian* on a short paragraph descriptive of the repairs at this church, quoted from our "Church News." It was sent to us from the spot, and appears to have for its authority the *Cardiff Guardian*. It is, moreover, for the most part correct, though oddly worded. We can say more for the vivacity of Mr. Freeman than for his good taste in the matter.

METROPOLITAN BUILDING ACT.—The number of paid surveys made under the provisions of the Metropolitan Building Act, for surveying dangerous structures, since the date of the Act, to March, 1859, was 3,878, and the amount of fees paid on surveys 3,827*l.* Fifty-eight second surveys were made of dangerous structures, and 1,655 surveys made of structures reported "not dangerous," for which no fees were paid. The fees are all paid to the Receiver of the Metropolitan Police, as directed by the Metropolitan Building Act, 1855. 572 summonses were issued for the recovery of such fees.

THE CHAMBERS'S INSTITUTION AT PEEBLES.—Mr. William Chambers, of Glenormiston, one of the publishers of *Chambers's Journal*, &c. has just vested in the magistrates and town council of Peebles, his native place, the property of "The Chambers Institution," in trust for the use of the inhabitants of the town and district. The building and fittings-up, including a public assembly hall, and a museum and gallery of art, a reading-room and large library, will, it is said, cost about 30,000*l.* The internal decoration of the building is superintended by Mr. James Ballantine.

PUBLIC WORKS IN INDIA.—From a return to the House of Lords it would appear that the gross total amount of money for the construction of railroads and other public works in India, for raising which, under a guarantee of interest, measures have been taken, is 32,314,300*l.* the rate of interest being generally 5 per cent. and in a very few cases 4½ to 4¾ per cent. The portion of this enormous sum of money paid up on the 28th of February last was 20,869,016*l.*

RESIDENCES FOR WESLEYAN PREACHERS.—The Wesleyan body, like the Presbyterian, are for organizing and carrying out the erection of residences for their preachers. It is proposed to have two classes, first and second, with two varieties for each. The first class to cost 500*l.* and 450*l.* each, and the second from 350*l.* to 400*l.* In furtherance of this object, Mr. John Boyd, architect, of Belfast, has furnished plans, specifications, and quantities, which are proposed to be printed.—*Dublin Builder.*

PHONAUTOGRAPHY.—A singular discovery is said to have been made by a Mr. L. Scott, by means of which sounds may be made to record themselves, whether these sounds are those of musical instruments, or emitted by the voice in singing or speaking. Professor Wheatstone, during his recent visit to Paris, was invited by the Abbé Moigno to inspect the papers on which these sounds had printed themselves, and is said to have been greatly surprised and pleased with what he saw. The mark produced on the paper by a particular note, says the *Photographic News*, in reference to this discovery, is invariably the same; so, also, if a person speaks, the tone of voice in which he speaks is faithfully recorded. As yet no practical advantage has been obtained by this discovery; but Mr. Scott is confident it will ultimately be "capable of printing a speech, which may be written off verbatim."

DESTRUCTIVE EFFECTS OF RED LEAD UPON IRON.—Mr. Robert Lamont has reported to the managers of one of the largest steam-packet companies in Liverpool that the use of red lead for coating iron vessels is most pernicious. In this he is confirmed by the opinion of Mr. Nathan Mercer, F.C.S. The red-lead coating gets covered with blisters, from each of which, on being opened, a clear fluid escapes, and leaves exposed on the surface of the iron a number of brilliantly-shining crystals of metallic lead. Mr. Mercer says each blister is, in fact, a galvanic battery in miniature; and that as, wherever there is electrical there must also be chemical action, the corrosion is easily accounted for. This action, he says, will continue as long as any red lead remains, and is necessarily at the expense of the iron. "Sweating" is due, in a great degree, to the use of red lead paint in immediate contact with iron.

PHOTOGRAPHIC SOIREE AT THE MANSION HOUSE.—The Lord Mayor and the Lady Mayoress, on Friday, the 15th, received a large number of literary, scientific, and artistic guests at the Mansion House. Many of the principal photographers contributed specimens of their skill, and there were, besides, various models and mechanical contrivances, in addition to the kind endeavours of the hosts, to make the evening pass successfully.

CAUTION TO CARPENTERS AND JOINERS.—On Monday morning a man, representing himself to be a foreman in the employ of the Telegraph Company, engaged two joiners to go to Hatford to do some work for the above-named company. The engagement tock place at the Artillery Arms, Rochester-row, Westminster, which is a house of call for carpenters and joiners. The men, with their tools, accompanied the man to Charing-cross: at his suggestion they left their tools at the Silver Cross, and went to a timber-yard to select some timber: at the yard he left them on pretence of getting some breakfast: after waiting some time they returned to the Silver Cross, and found their tools had been taken away by the man, and no clue to either the tools or the man has since been obtained.—A. B.

FIRE AT ST. MARK'S CHAPEL, FULHAM-ROAD. On Sunday afternoon a fire broke out in St. Mark's Chapel, Fulham, the property of the National Society for Promoting the Education of the Poor. The fire was not subdued until nearly two hours had elapsed, and a serious amount of mischief had been done. There is not the least doubt that it was occasioned from the overheating of the furnace, which set the flue on fire, and the flames then extended along the timbers in the roof.

TENDERS.

For Cottages, Lodging-house, &c. to be erected at Newbury, Berks. Mr. N. E. Stevens, architect:—

Church and Purchell, Newbury	£1,798	15	6
B. Sargent, Newbury	1,754	10	0
G. Mathews, Paddington	1,747	0	0
R. Smith, Dickleburgh	1,607	0	0
Harrison, Brothers, Newbury	1,575	0	0
T. Beckensall, Steventon	1,650	0	0
Morris and Son, Newbury	1,610	0	0
Dove, Brothers, Islington	1,575	0	0

For constructing a Shop Front, to No. 4, Union-row, Camberwell. Mr. Sydney Arnold, architect:—

Coleman	£140	0	0
Ring and Stanger	130	0	0
Colls	128	0	0
Clegg	110	0	0

For constructing a Dead-house, and executing sundry works to the vaults, St. Magnus Church. Mr. Sydney Arnold, architect:—

Coleman	£133	0	0
Greenwood	96	0	0
Brown and Robinson	87	0	0

For works to be done in erecting New Shop and Dwelling-house, for Messrs. Edwin Knapp and Co. Wood-street, Swindon. Mr. Edward W. Mantell, architect:—

Barrett	£1,057	6	0
Phillips	1,000	0	0
Major (accepted)	898	0	0

For new Memel Fir Roof, and re-tiling to the nave of Meopham Church, Kent. Mr. Francis G. Lee, architect:—

Wood, Gravesend	£348	0	0
Brigden, Meopham (accepted)	297	0	0

For additions at the Royal Military Hotel, Aldershott, under Mr. J. W. Penfold:—

Steerman, Aldershott	£118	10	0
Speakman and Haines, Farnham	98	0	0
Marten, Aldershott	98	0	0
Attfield, Farnham	82	0	0

For the first portion of the proposed addition to the County Asylum, at Rainhill, Lincolnshire, there were eighteen tenders sent in, the highest of which was from P. Farrell, Manchester, 11,466*l.*; the lowest, T. Stone, Newton, 7,956*l.* 18s.

TO CORRESPONDENTS.

INQUIRY.—A gentleman requiring an extension of his business premises, commissioned an architect to prepare a design and plan, the outside cost of which erection shall not exceed 500*l.* On procuring estimates, they were within a trifle double the amount, viz. 1,000*l.* Such being the case, the affair was necessarily abandoned. The architect not having adhered to instructions as to amount, is he entitled to remuneration? and if so, at what rate on the whole amount?—Y. Z.

J. S. (next week).—A constant reader (the evidence is very contradictory: we cannot take the responsibility of advising its use).—C. and R.—F. S.—H. F.—T. G.—J. S.—Edwards (we are not in a position to advise usefully). Look to the Act).—M. L.—Philip.—Quondam.—A Builder.—J. G.—T. N.—W. G.—Mr. P.—A. W.—W. A. (thanks; not desired).—G. J. W.—G. and Son.—P. G.—J. B.—W. H. L.

"BOOKS AND ADDRESSES."—We are forced to decline pointing out books or finding addresses.

Post-office Orders and Remittances should be made payable to Mr. Morris R. Coleman.

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